# **NACOmatic**

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# Contact:

Doug Ranz 248-318-0011 NACOmatic@hotmail.com

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#### GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the National Aeronautical Charting Office, FAA, Department of Transportation, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial-Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

#### CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

#### FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE: http://nfdc.faa.gov/portal/airportchanges.do

FAA, Aeronautical Information Services, ATO-R, Rm. 626

800 Independence Ave., SW

Washington, DC 20591

Telephone 1-866-295-8236

Fax 202-267-5322

Email 9-ATOR-HO-AIS-AIRPORTCHANGES@FAA.GOV

NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the "cut-off" dates listed below to assure publication on the desired effective date.

|                | Airport Information | Airspace Information* |
|----------------|---------------------|-----------------------|
| Effective Date | Cut-off date        | Cut-off date          |
| 17 Dec 09      | 4 Nov 09            | 15 Oct 09             |
| 11 Feb 10      | 30 Dec 09           | 10 Dec 09             |
| 8 Apr 10       | 24 Feb 10           | 4 Feb 10              |
| 3 Jun 10       | 21 Apr 10           | 1 Apr 10              |
| 29 Jul 10      | 16 Jun 10           | 27 May 10             |
| 23 Sep 10      | 11 Aug 10           | 22 Jul 10             |

<sup>\*</sup>Including changes to preferred routes and graphic depictions on charts.

#### FOR CHARTING ERRORS CONTACT:

ı

FAA, National Aeronautical Charting Office, ATO-W

SSMC-4 Sta. #2335

1305 East West Highway

Silver Spring, MD 20910–3281

Telephone 1-800-626-3677

Email 9-AMC-Aerochart@faa.gov

Frequently asked questions (FAQs) are answered on our web site at <a href="www.naco.faa.gov">www.naco.faa.gov</a>. See the FAQs prior to contact via toll free number.

#### FOR PROCUREMENT CONTACT:

FAA, National Aeronautical Charting Office

Distribution Division, ATO-W

10201 Good Luck Road

Glenn Dale, MD 20769-9700

Online at www.naco.faa.gov

Email 9-AMC-Chartsales@faa.gov

Telephone 1-800-638-8972

Fax 301-436-6829

or any authorized FAA Chart Agent

New or Changed Information—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.

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#### **ABBREVIATIONS**

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example-"req" may mean "request", "requesting", "requested", or "requests").

| AAF    | Army Air Field                        | byd    | beyond                                |
|--------|---------------------------------------|--------|---------------------------------------|
| AB     | Airbase                               | С      | Commercial Circuit (Telephone)        |
| abv    | above                                 | CGAF   | Coast Guard Air Facility              |
| ACC    | Air Combat Command; Area Control      | CGAS   | Coast Guard Air Station               |
|        | Center                                | CIV    | Civil                                 |
| acft   | aircraft                              | clsd   | closed                                |
| ADCC   | Air Defense Control Center            | comd   | command                               |
| AER    | approach end rwy                      | CONUS  | Continental United States             |
| AFB    | Air Force Base                        | CSTMS  | Customs                               |
| AFHP   | Air Force Heliport                    | ctc    | contact                               |
| afld   | airfield                              | ctl    | control                               |
| AFOD   | US Army Flight Operations Detachment  | dalgt  | daylight                              |
| AFRC   | Armed Forces Reserve Center/Air Force | Dec    | December                              |
|        | Reserve Command                       | DIAP   | DoD Instrument Approach Procedure     |
| AFSS   | Automated Flight Service Station      | DoD    | Department of Defense                 |
| AG     | Agriculture                           | DSN    | Defense Switching Network (Telephone) |
| A-GEAR | Arresting Gear                        | dsplcd | displaced                             |
| AGL    | above ground level                    | durn   | duration                              |
| AHP    | Army heliport                         | eff    | effective                             |
| ALS    | Approach Light System                 | emerg  | emergency                             |
| alt    | altitude                              | EOR    | End of Runway                         |
| AMC    | Air Mobility Command                  | ETA    | Estimated Time of Arrival             |
| ANGS   | Air National Guard Station            | ETD    | Estimated Time of Departure           |
| apch   | approach                              | exc    | except                                |
| Apr    | April                                 | extd   | extend                                |
| APU    | Auxiliary Power Unit                  | FBO    | fixed-base operator                   |
| ARB    | Air Reserve Base                      | Feb    | February                              |
| arpt   | airport                               | fld    | field                                 |
| ARS    | Air Reserve Station                   | FLIP   | Flight Information Publication        |
| AS     | Air Station                           | flt    | flight                                |
| ASDE-X | Airport Surface Detection Equipment—  | flw    | follow                                |
|        | Model X                               | Fri    | Friday                                |
| ASU    | Aircraft Starting Unit                | FSS    | Flight Service Station                |
| ATC    | Air Traffic Control                   | GA     | glide angle                           |
| Aug    | August                                | GCA    | Ground Controlled Approach            |
| AUW    | All Up Weight (gross weight)          | GS     | glide slope                           |
| avbl   | available                             | haz    | hazard                                |
| bcn    | beacon                                | HQ     | Headquarters                          |
| blo    | below                                 |        |                                       |
|        |                                       |        |                                       |

#### CONTINUED ON NEXT PAGE

#### CONTINUED FROM PRECEDING PAGE

hr hour non precision instrument ΙΔΡ Instrument Approach Procedure NS ABTMT Noise Abatement ICAC International Civil Aviation Organization NSTD nonstandard IFR Instrument Flight Rules ntc notice ILS Instrument Landing System obsn observation IM Inner Marker Oct October IMG Immigration OI F Outlying Field

incr increase onr operate, operator, operational

indet indefinite ons operations intensity OTS out of service ints invof in the vicinity of ovrn overrun

personnel and equipment working IMC Instrument Meteorological Conditions PAFW

lan nat pattern Jet Aircraft Starting Unit IASI p-line power line

JOAP Joint Oil Analysis Program **PMSV** Pilot-to-Metro Service IOSAC Joint Operational Support Airlift Center PΩI Petrol, Oils and Lubricants IRB Joint Reserve Base PPR prior permission required Jul July PRM Precision Runway Monitoring PTD

Jun June Pilot to Dispatcher

Κt Knots RAMCC Regional Air Movement Control Center

LAA Local Airport Advisory rea request LAHSO Land and Hold Short Operations rgt tfc right traffic RON Remain Overnight lhs nounds ldg landing rar require lighted rstd lgtd restricted

RSRS løts lights reduced same runway separation

LMM Compass locator at Middle Marker ILS rwv runway LOC Localizer Sat Saturday

LOM Compass locator at Outer Marker ILS SFLE Strategic Expeditionary Landing Field

limited Sen Itd September MACC Military Area Control Center SFA Single Frequency Approach

March efe Mar surface

SFRA MCAF Marine Corps Air Facility Special Flight Rules Area

SOAP MCALE Marine Corps Auxiliary Landing Field Spectrometric Oil Analysis Program

SOF Supervisor of Flying MCAS Marine Corps Air Station Marine Corps Base SPR MCB Seaplane Base

SP med medium sunrise SS METRO Pilot-to-Metro voice call sunset Mil military std standard min minute Sur Sunday MLS Microwave Landing System SVC service MM Middle Marker of ILS tfc traffic Mon Monday thld threshold Maintenance Period Thu Thursday tkf

MP MSI mean sea level take-off MSAW minimum safe altitude warning tmnrv temporary NAAS Naval Auxiliary Air Station tran transient NADC Naval Air Development Center Tue Tuesday NADER Naval Air Depot twr tower Naval Air Engineering Center NAEC twv taxiway

NAFS Naval Air Engineering Station UC **Under Construction** Naval Air Facility USA United States Army NAF Naval Air Logistics Control Office NALCO USAF United States Air Force USCG NALO Navy Air Logistics Office United States Coast Guard NALE Naval Auxiliary Landing Field USN United States Navy

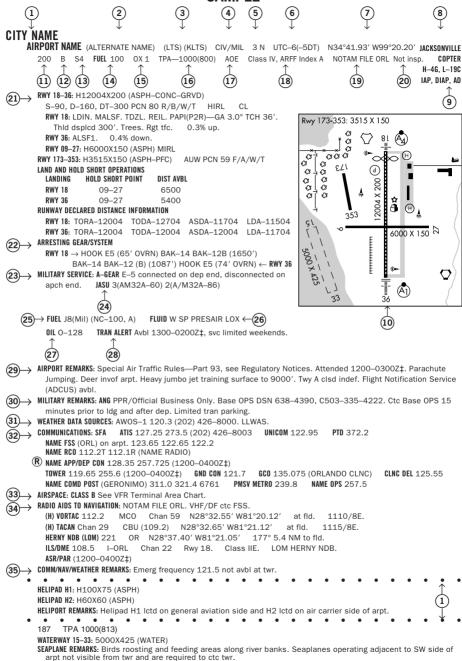
NAS Naval Air Station Defense Switching Network (telephone,

NAWC Naval Air Warfare Center formerly AUTOVON) NAWS Naval Air Weapons Station VFR Visual Flight Rules VIP night Very Important Person ngt

NOLF Naval Outlying Field VMC Visual Meteorological Conditions

Nov November Wed Wednesday wx weather

# SAMPI F



All bearings and radials are magnetic unless otherwise specified.
All mileages are nautical unless otherwise noted.
All times are Coordinated Universal Time (UTC) except as noted.
All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.
The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

| 10 SKETC                                    | H LEGEND  |
|---|---|
| runways/landing areas                       | radio aids to navigation  |
| Hard Surfaced                               | VORTAC  |
| Metal Surface                               | VOR/DME NDB   |
| Sod, Gravel, etc                            | TACAN TO NDB/DME  |
| Light Plane,                                | MISCELLANEOUS AERONAUTICAL<br>FEATURES  |
| Closed                                      | Airport Beacon  |
| Helicopter Landings Area                    | Wind Cone   |
| Displaced Threshold 0                       | Tetrahedron   |
| Taxiway, Apron and Stopways                 |   |
| ANGCELLANICOUG BACE AND CHITLIDAL           | APPROACH LIGHTING SYSTEMS   |
| MISCELLANEOUS BASE AND CULTURAL<br>FEATURES | A dot "•" portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting |
| Buildings                                   | system e.g. (A) Negative symbology, e.g., (A)  w indicates Pilot Controlled Lighting (PCL).   |
| Power Lines                                 | Runway Centerline Lighting  |
| Fence                                       | Approach Lighting System ALSF-2 I   |
| Towers                                      | Approach Lighting System ALSF-1   |
| Tanks                                       | Short Approach Lighting System SALS/SALSF.                   Simplified Short Approach Lighting System (SSALR) with RAII                  |
| Oil Well                                    | System (SSALR) with RAIL  |
| Smoke Stack                                 | and SSALF)  |
| 5812<br>Obstruction                         | As System (MALSR) and RAIL  |
| Controlling Obstruction                     | Lighting System (ODALS)   |
| G & G.                                      | (‡) Air Force Overrun   |
| Trees                                       | Visual Approach Slope Indicator with Standard Threshold Clearance provided  |
| Populated Places                            | Pulsating Visual Approach Slope Indicator (PVASI)   |
| Cuts and Fills Fill HITTITI                 | Visual Approach Slope Indicator with a threshold crossing height to accomodate long bodied or jumbo aircraft                              |
| Cliffs and Depressions                      | Tri-color Visual Approach Slope Indicator (TRCV)  |
| Ditch                                       | (V3) Approach Path Alignment Panel (APAP)   |
| Hill  | P Precision Approach Path Indicator (PAPI)  |

#### LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Navaids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases, Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

### 1 CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

# (2) ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

### (3) LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter "O".

# (4) OPERATING AGENCY

Α

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

MC

Marine Corps

AFRC Air Force Reserve Command N Navv US Air Force Naval Air Facility ΔF NAF ANG Air National Guard NAS Naval Air Station AR US Army Reserve NASA National Air and Space Administration

ARNG US Army National Guard P US Civil Airport Wherein Permit Covers
CG US Coast Guard Use by Transient Military Aircraft
CIV/MIL Joint Use Civil/Military PVT Private Use Only (Closed to the Public)

DND Department of National Defense Canada

US Army

# 5 AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

# (6) TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as "Z" time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC-5(-4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (-4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15-Aug 31 0630-1700Z, Sep 1-Apr 14 0600-1700Z.

# 7 GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

# 8 CHARTS

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER. IFR Gulf of Mexico West and IFR Gulf of Mexico Central will be depicted as GOMW and GOMC.

# (9) INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAMS

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5–4–5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

# 10 AIRPORT SKETCH

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

# (11) ELEVATION

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as "00". When elevation is below sea level a minus "-" sign will precede the figure.

# (12) ROTATING LIGHT BEACON

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

# (13) SERVICING—CIVIL

| S1: | Minor airframe repairs.                      | S5: | Major airframe repairs.                      |
|-----|--|-----|--|
| S2: | Minor airframe and minor powerplant repairs. | S6: | Minor airframe and major powerplant repairs. |
| S3: | Major airframe and minor powerplant repairs. | S7: | Major powerplant repairs.                    |
| S4: | Major airframe and major powerplant repairs. | S8: | Minor powerplant repairs.                    |

### (14) FUEL

| CODE  | FUEL  | CODE     | FUEL  |
|-------|---|----------|---|
| 80    | Grade 80 gasoline (Red)                       | B+       | Jet B, Wide-cut, turbine fuel with FS-II*, FP** |
| 100   | Grade 100 gasoline (Green)                    |          | minus 50° C.                                    |
| 100LL | 100LL gasoline (low lead) (Blue)              | J4 (JP4) | (JP-4 military specification) FP** minus        |
| 115   | Grade 115 gasoline (115/145 military          |          | 58° C.  |
|       | specification) (Purple)                       | J5 (JP5) | (JP-5 military specification) Kerosene with     |
| Α     | Jet A, Kerosene, without FS-II*, FP** minus   |          | FS-11, FP** minus 46°C.                         |
|       | 40° C.  | J8 (JP8) | (JP-8 military specification) Jet A-1, Kerosene |
| A+    | Jet A, Kerosene, with FS-II*, FP** minus      |          | with FS-II*, FP** minus 47°C.                   |
|       | 40°C.   | J8+100   | (JP-8 military specification) Jet A-1, Kerosene |
| A1    | Jet A-1, Kerosene, without FS-II*, FP**       |          | with FS-II*, FP** minus 47°C, with-fuel         |
|       | minus 47°C.                                   |          | additive package that improves thermo           |
| A1+   | Jet A-1, Kerosene with FS-II*, FP** minus     |          | stability characteristics of JP-8.              |
|       | 47° C.  | J        | (Jet Fuel Type Unknown)                         |
| В     | Jet B, Wide-cut, turbine fuel without FS-II*, | MOGAS    | Automobile gasoline which is to be used         |
|       | FP** minus 50° C.                             |          | as aircraft fuel.                               |

<sup>\*(</sup>Fuel System Icing Inhibitor)

NOTE: Certa

Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as "MOGAS", however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

# 15 OXYGEN—CIVIL

OX 1 High Pressure OX 3 High Pressure—Replacement Bottles
OX 2 Low Pressure OX 4 Low Pressure—Replacement Bottles

# 16 TRAFFIC PATTERN ALTITUDE

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as "TPA—See Remarks" and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

<sup>\*\*(</sup>Freeze Point)

# 17

#### $^{7}$ airport of entry. Landing rights, and customs user fee airports

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

| Northeast Sector (New England and Atlantic States—ME to MD)           | 407-975-1740 |
|---|--------------|
| Southeast Sector (Atlantic States—DC, WV, VA to FL)                   | 407-975-1780 |
| Central Sector (Interior of the US, including Gulf states—MS, AL, LA) | 407-975-1760 |
| Southwest East Sector (OK and eastern TX)                             | 407-975-1840 |
| Southwest West Sector (Western TX, NM and AZ)                         | 407-975-1820 |
| Pacific Sector (WA, OR, CA, HI and AK)                                | 407-975-1800 |

### (18) CERTIFICATED AIRPORT (14 CFR PART 139)

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

# 14 CFR PART 139 CERTIFICATED AIRPORTS AIRPORT CLASSIFICATIONS

| Type of Air Carrier Operation                                     | Class I | Class II | Class III | Class IV |
|---|---------|----------|-----------|----------|
| Scheduled Air Carrier Aircraft with 31 or more passenger seats    | Х       |          |           |          |
| Unscheduled Air Carrier Aircraft with 31 or more passengers seats | Х       | Х        |           | Х        |
| Scheduled Air Carrier Aircraft with 10 to 30 passenger seats      | Х       | Х        | Х         |          |

# 14 CFR-PART 139 CERTIFICATED AIRPORTS

#### INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

| Airport<br>Index | Required<br>No.<br>Vehicles | Aircraft Length | Scheduled<br>Departures | Agent + Water for Foam                          |
|------------------|-----------------------------|-----------------|-------------------------|---|
| А                | 1                           | <90'            | ≥1                      | 500#DC or HALON 1211<br>or 450#DC + 100 gal H₂O |
| В                | 1 or 2                      | ≥90′, <126′     | ≥5                      | Index A + 1500 gal H <sub>2</sub> O             |
|                  |                             |                 |                         |   |
|                  |                             | ≥126′, <159′    | <5                      |   |
| С                | 2 or 3                      | ≥126′, <159′    | ≥5                      | Index A + 3000 gal H <sub>2</sub> O             |
|                  |                             |                 |                         |   |
|                  |                             | ≥159′, <200′    | <5                      |   |
| D                | 3                           | ≥159′, <200′    |                         | Index A + 4000 gal H <sub>2</sub> O             |
|                  |                             |                 |                         |   |
|                  |                             | >200′           | <5                      |   |
| E                | 3                           | ≥200′           | ≥5                      | Index A + 6000 gal H <sub>2</sub> O             |

<sup>&</sup>gt; Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H<sub>2</sub>O-Water; DC-Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

# 19 NOTAM SERVICE

All public use landing areas are provided NOTAM "D" (distant dissemination) and NOTAM "L" (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. "NOTAM FILE IAD". See AIM, Basic Flight Information and

ATC Procedures for detailed description of NOTAM's. Current NOTAMs are available from Flight Service Stations at 1–800–WX–BRIEF. Real time Military NOTAMs are available using the DoD Internet NOTAM Distribution System (DINS) www.notams.jcs.mil.

# 20 FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

# 21 RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

#### RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as Ultralight or assault strips. Assault | strips are shown by magnetic bearing.

#### RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

#### RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter "H" indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt-concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

| (AFSC)—Aggregate friction seal coat | (GRVL)—Gravel, or cinders         | (PSP)—Pierced steel plank            |
|-------------------------------------|-----------------------------------|--------------------------------------|
| (ASPH)—Asphalt                      | (MATS)—Pierced steel planking,    | (RFSC)—Rubberized friction seal coat |
| (CONC)—Concrete                     | landing mats, membranes           | (TURF)—Turf                          |
| (DIRT)—Dirt                         | (PEM)—Part concrete, part asphalt | (TRTD)—Treated                       |
| (GRVD)—Grooved                      | (PFC)—Porous friction courses     | (WC)—Wire combed                     |

#### RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

| CURRENT | NEW    | NEW DESCRIPTION   |
|---------|--------|---|
| S       | S      | Single wheel type landing gear (DC3), (C47), (F15), etc.    |
| D       | D      | Dual wheel type landing gear (BE1900), (B737), (A319), etc. |
| T       | D      | Dual wheel type landing gear (P3, C9).                      |
| ST      | 28     | Two single wheels in tandem type landing gear (C130).       |
| TRT     | 2T     | Two triple wheels in tandem type landing gear (C17), etc.   |
| DT      | 2D     | Two dual wheels in tandem type landing gear (B707), etc.    |
| TT      | 2D     | Two dual wheels in tandem type landing gear (B757,          |
|         |        | KC135).   |
| SBTT    | 2D/D1  | Two dual wheels in tandem/dual wheel body gear type         |
|         |        | landing gear (KC10).  |
| None    | 2D/2D1 | Two dual wheels in tandem/two dual wheels in tandem body    |
|         |        | gear type landing gear (A340–600).                          |
| DDT     | 2D/2D2 | Two dual wheels in tandem/two dual wheels in double         |
|         |        | tandem body gear type landing gear (B747, E4).              |
| TTT     | 3D     | Three dual wheels in tandem type landing gear (B777), etc.  |
| TT      | D2     | Dual wheel gear two struts per side main gear type landing  |
|         |        | gear (B52).   |
| TDT     | C5     | Complex dual wheel and quadruple wheel combination          |
|         |        | landing gear (C5).  |

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.

SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).

PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

- (1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.
- (2) The type of pavement:
  - R Rigid
  - F Flexible
- (3) The pavement subgrade category:
  - A High
  - B Medium
  - C Low
  - D Ultra-low

- $\begin{tabular}{ll} (4) The maximum tire pressure authorized for the pavement: \\ \end{tabular}$ 
  - W High, no limit
  - X Medium, limited to 217 psi
  - Y Low, limited to 145 psi
- Z Very low, limited to 73 psi(5) Pavement evaluation method:
  - T Technical evaluation
  - U By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

#### RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.

LIRL-Low Intensity Runway Lights.

MIRL—Medium Intensity Runway Lights.

HIRL—High Intensity Runway Lights.

RAIL—Runway Alignment Indicator Lights.

REIL—Runway End Identifier Lights.

CL—Centerline Lights.

TDZL-Touchdown Zone Lights.

ODALS-Omni Directional Approach Lighting System.

AF OVRN-Air Force Overrun 1000' Standard

Approach Lighting System.

LDIN-Lead-In Lighting System.

MALS-Medium Intensity Approach Lighting System.

MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.

MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.

SALS—Short Approach Lighting System.

SALSF—Short Approach Lighting System with Sequenced Flashing Lights.

SSALS—Simplified Short Approach Lighting System.

SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.

SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.

ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.

ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.

ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.

SF-Sequenced Flashing Lights.

OLS-Optical Landing System.

WAVE-OFF.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the "Remarks" portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

#### VISUAL GLIDESLOPE INDICATORS

| APAP—A system of panels, which may or may not be lighted, us  | ed for alignme | ent of approach path.                           |
|---|----------------|---|
| PNIL APAP on left side of runway                              | PNIR           | APAP on right side of runway                    |
| PAPI—Precision Approach Path Indicator                        |                |   |
| P2L 2-identical light units placed on left side of            | P4L            | 4-identical light units placed on left side of  |
| runway  |                | runway  |
| P2R 2-identical light units placed on right side of           | P4R            | 4-identical light units placed on right side of |
| runway  |                | runway  |
| PVASI—Pulsating/steady burning visual approach slope indicate | or, normally a | single light unit projecting two colors.        |
| PSIL PVASI on left side of runway                             | PSIR           | PVASI on right side of runway                   |
| SAVASI—Simplified Abbreviated Visual Approach Slope Indicato  | r              |   |

S2R

2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

2-box SAVASI on left side of runway

S2L

| TRIL       | TRCV on left side of runway        | TRIR | TRCV on right side of runway        |
|------------|------------------------------------|------|-------------------------------------|
| VASI—Visua | l Approach Slope Indicator         |      |                                     |
| V2L        | 2-box VASI on left side of runway  | V6L  | 6-box VASI on left side of runway   |
| V2R        | 2-box VASI on right side of runway | V6R  | 6-box VASI on right side of runway  |
| V4L        | 4-box VASI on left side of runway  | V12  | 12-box VASI on both sides of runway |
| V4R        | 4-box VASI on right side of runway | V16  | 16-box VASI on both sides of runway |
|            |                                    |      |                                     |

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., -GA 3.5° TCH 37'.

#### PILOT CONTROL OF AIRPORT LIGHTING

| Key Mike                 | Function   |
|--------------------------|--|
| 7 times within 5 seconds | Highest intensity available                        |
| 5 times within 5 seconds | Medium or lower intensity (Lower REIL or REIL-Off) |
| 3 times within 5 seconds | Lowest intensity available                         |
|                          | (Lower REIL or REIL-Off)                           |

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07—122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, "Basic Flight Information and ATC Procedures," for detailed description of pilot control of airport lighting.

RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

#### RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. "Rgt tfc"—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

#### LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for "Land and Hold Short Operations." These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold–short operations and markings.

#### RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take-off

TODA—Take-off Distance Available. The length of the take-off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take-off run available plus the length of the stopway, if provided. LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

# (22) ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a–gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A–Gear which has a bi–direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A–Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

BI-DIRECTIONAL CABLE (B)

12

<u>TYPE</u> <u>DESCRIPTION</u>

BAK-9 Rotary friction brake.

BAK-12A Standard BAK-12 with 950 foot run out, 1-inch cable and 40,000 pound weight setting. Rotary

friction brake.

BAK-12B Extended BAK-12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary

friction brake.

E28 Rotary Hydraulic (Water Brake).
M21 Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK-14 A device that raises a hook cable out of a slot in the runway surface and is remotely positioned

for engagement by the tower on request. (In addition to personnel reaction time, the system

requires up to five seconds to fully raise the cable.)

H A device that raises a hook cable out of a slot in the runway surface and is remotely positioned

for engagement by the tower on request. (In addition to personnel reaction time, the system

requires up to one and one-half seconds to fully raise the cable.)

UNI-DIRECTIONAL CABLE

TYPE DESCRIPTION

MB60 Textile brake—an emergency one-time use, modular braking system employing the tearing of

specially woven textile straps to absorb the kinetic energy.

E5/E5-1/E5-3 Chain Type. At USN/USMC stations E-5 A-GEAR systems are rated, e.g., E-5 RATING-13R-1100

HW (DRY), 31L/R-1200 STD (WET). This rating is a function of the A-GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under

Military Service.

FOREIGN CABLE

TYPE DESCRIPTION US EQUIVALENT

44B–3H Rotary Hydraulic) (Water Brake)

CHAG Chain E-5

UNI-DIRECTIONAL BARRIER

TYPE DESCRIPTION

MA-1A Web barrier between stanchions attached to a chain energy absorber.

BAK-15 Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction,

chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK–15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

OTHER

TYPE DESCRIPTION

EMAS Engineered Material Arresting System, located beyond the departure end of the runway, consisting of

high energy absorbing materials which will crush under the weight of an aircraft.

# 23 MILITARY SERVICE

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

# 24 JET AIRCRAFT STARTING UNITS (JASU)

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non-availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35–1–7.)

**ELECTRICAL STARTING UNITS:** 

A/M32A-86 AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire

DC: 28v, 1500 amp, 72 kw (with TR pack)

MC-1A AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire

DC: 28v, 500 amp, 14 kw

MD-3 AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire

DC: 28v. 1500 amp. 45 kw. split bus

MD-3A AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire

DC: 28v, 1500 amp, 45 kw, split bus

MD-3M AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire

DC: 28v, 500 amp, 15 kw

MD-4 AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, "WYE" neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, "DELTA" 3 wire, 120v, 400 cycle, 1 phase, 62.5

kva. 0.8 pf. 520 amp. 2 wire

AIR STARTING UNITS

AM32–95 150 + / - 5 lb/min (2055 + / - 68 cfm) at 51 + / - 2 psia AM32A–95 150 + / - 5 lb/min @ 49 + / - 2 psia (35 + / - 2 psig)

LASS 150 +/- 5 lb/min @ 49 +/- 2 psia

MA-1A 82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press

MC-1 15 cfm, 3500 psia MC-1A 15 cfm, 3500 psia MC-2A 15 cfm, 200 psia

MC-11 8,000 cu in cap, 4000 psig, 15 cfm

COMBINED AIR AND ELECTRICAL STARTING UNITS:

AGPU AC: 115/200v, 400 cycle, 3 phase, 30 kw gen

DC: 28v, 700 amp

AIR: 60 lb/min @ 40 psig @ sea level

AM32A-60\* AIR: 120 + - 4 lb/min (1644 + - 55 cfm) at 49 + - 2 psia

AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva

DC: 28v, 500 amp, 15 kw

AM32A-60A AIR: 150 +/- 5 lb/min (2055 +/- 68 cfm at 51 +/- psia

AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw

AM32A-60B\* AIR: 130 lb/min, 50 psia

AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire

DC: 28v, 200 amp, 5.6 kw

\*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.

USN JASU

**ELECTRICAL STARTING UNITS:** 

NC-8A/A1 DC: 500 amp constant, 750 amp intermittent, 28v;

AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.

NC-10A/A1/B/C

DC: 750 amp constant, 1000 amp intermittent, 28v:

AC: 90 kva, 115/200v, 3 phase, 400 Hz.

AIR STARTING UNITS:

GTC-85/GTE-85 120 lbs/min @ 45 psi. MSU-200NAV/A/U47A-5 204 lbs/min @ 56 psia.

WELLS AIR START 180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.

SYSTEM

COMBINED AIR AND ELECTRICAL STARTING UNITS:

NCPP-105/RCPT 180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC,

30 kva.

JASU (ARMY)

59B2–1B 28v, 7.5 kw, 280 amp.

OTHER JASU

ELECTRICAL STARTING UNITS (DND):

CE12 AC 115/200v, 140 kva, 400 Hz, 3 phase CE13 AC 115/200v, 60 kva, 400 Hz, 3 phase

CE14 AC/DC 1.15/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15 DC 22-35v, 500 amp continuous 1.100 amp intermittent
CE16 DC 22-35v, 500 amp continuous 1.100 amp intermittent soft start

AIR STARTING UNITS (DND):

CA2 ASA 45.5 psig, 116.4 lb/min COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)

CEA1 AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp

AIR 112.5 lb/min, 47 psig

ELECTRICAL STARTING UNITS (OTHER)

C-26 28v 45kw 115-200v 15kw 380-800 Hz 1 phase 2 wire

C-26-B, C-26-C 28v 45kw: Split Bus: 115-200v 15kw 380-800 Hz 1 phase 2 wire

E3 DC 28v/10kw

AIR STARTING UNITS (OTHER):

A4 40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)

MA-1 150 Air HP, 115 lb/min 50 psia MA-2 250 Air HP, 150 lb/min 75 psia

CARTRIDGE:

MXU-4A USAF



Fuel available through US Military Base supply, DESC Into-Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into-Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into-Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into-Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into-Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at <a href="https://www.desc.dla.mil/Static/ProductsAndServices.asp">www.desc.dla.mil/Static/ProductsAndServices.asp</a>; click on the Commercial Airports button.

See legend item 14 for fuel code and description.

# 26 SUPPORTING FLUIDS AND SYSTEMS—MILITARY

ADI

Anti-Detonation Injection Fluid—Reciprocating Engine Aircraft.

W Water Thrust Augmentation—Jet Aircraft.

WAI Water-Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.

SP Single Point Refueling.

PRESAIR Air Compressors rated 3,000 PSI or more.

De-Ice Anti-icing/De-icing/Defrosting Fluid (MIL-A-8243).

OXYGEN:

LPOX Low pressure oxygen servicing.
HPOX High pressure oxygen servicing.
LHOX Low and high pressure oxygen servicing.

LOX Liquid oxygen servicing.

OXRB Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be

replenished only by replacement of cylinders.)

OX Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB Low and high pressure oxygen servicing and replacement bottles;

LPOXRB Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

#### NITROGEN:

CODE

LPNIT — Low pressure nitrogen servicing.

HPNIT — High pressure nitrogen servicing.

LHNIT — Low and high pressure nitrogen servicing.

GRADE TYPE

# **27** OIL—MILITARY

US AVIATION OILS (MIL SPECS):

| OODL   | anne, in E  |
|--------|---|
| 0-113  | 1065, Reciprocating Engine Oil (MIL-L-6082)                         |
| 0-117  | 1100, Reciprocating Engine Oil (MIL-L-6082)                         |
| 0-117+ | 1100, 0-117 plus cyclohexanone (MIL-L-6082)                         |
| 0-123  | 1065, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type III) |
| 0-128  | 1100, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type II)  |
| 0-132  | 1005, Jet Engine Oil (MIL-L-6081)                                   |
| 0-133  | 1010, Jet Engine Oil (MIL-L-6081)                                   |
| 0-147  | None, MIL-L-6085A Lubricating Oil, Instrument, Synthetic            |
| 0-148  | None, MIL-L-7808 (Synthetic Base) Turbine Engine Oil                |
| 0-149  | None, Aircraft Turbine Engine Synthetic, 7.5c St                    |
| 0-155  | None, MIL-L-6086C, Aircraft, Medium Grade                           |
| 0-156  | None MIL -I -23699 (Synthetic Base) Turboprop and Turboshaft Engine |

O-156 None, MIL-L-23699 (Synthetic Base), Turboprop and Turboshaft Engines

JOAP/SOAP Joint Oil Analysis Program, JOAP support is furnished during normal duty hours, or

Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service

supported program.)

# 28 TRANSIENT ALERT (TRAN ALERT)—MILITARY

Tran Alert service is considered to include all services required for normal aircraft turn-around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute repack, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN-AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

# **29** AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note "See Special Notices" shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional Information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

# **30** MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

#### Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non-operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircraws and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non-US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11–204, AR 95–27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on aboard are designated Code 6 or higher as explained in AFJMAN 11–213, AR 95–11, OPNAVINST 3722–8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

# **31** WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS-3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS-Automated Weather Observing System

AWOS-A—reports altimeter setting (all other information is advisory only).

AWOS-1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS-2-reports the same as AWOS-1 plus visibility.

AWOS-3—reports the same as AWOS-1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION

LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.

LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers. SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.

SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.

TDWR—indicates airports that have Terminal Doppler Weather Radar.

WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.



Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading "COMMUNICATIONS." When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1–800–WX–BRIEF (1–800–992–7433). When the FSS is located on the field it will be indicated as "on arpt". Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation.

(See AIM, Para 4-1-9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90-42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies-Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

- a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
- b. 122.2 is assigned as a common enroute frequency.
- c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
- d. 122.1 is the primary receive-only frequency at VOR's.
- e. Some FSS's are assigned 50 kHz frequencies in the 122–126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remoted facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter "T" or "R", indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

#### TERMINAL SERVICES

SFA—Single Frequency Approach.

CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.

ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.

D-ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.

AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.

UNICOM—A non-government air/ground radio communications facility which may provide airport information.

PTD-Pilot to Dispatcher.

APP CON—Approach Control. The symbol (R) indicates radar approach control.

TOWER—Control tower.

GCA—Ground Control Approach System.

GND CON-Ground Control.

GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four "key clicks" on the

VHF radio to contact the appropriate ATC facility or six "key clicks" to contact the FSS. The GCO system is intended to be used only on the ground.

DEP CON—Departure Control. The symbol (R) indicates radar departure control.

CLNC DEL-Clearance Delivery.

PRE TAXI CLNC-Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.

Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.

COMD POST—Command Post followed by the operator call sign in parenthesis.

PMSV—Pilot-to-Metro Service call sign, frequency and hours of operation, when full service is other than continuous.

PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or

hours of operation as "Wx obsn svc 1900–0000Z‡" or "other times" may be used when no specific time is given. PMSV facilities manned by forecasters are considered "Full Service". PMSV facilities manned by weather observers are listed as "Limited Service".

OPS—Operations followed by the operator call sign in parenthesis.

CON

RANGE

FLT FLW-Flight Following

MEDIVAC

NOTE: Communication frequencies followed by the letter "X" indicate frequency available on request.

# 33 AIRSPACE

Information concerning Class B, C, and part-time D and E surface area airspace shall be published with effective times.

Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.

CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.

CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.

TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.

Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.

When part-time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:

AIRSPACE: CLASS C svc "times" ctc APP CON other times CLASS E:

0

AIRSPACE: CLASS D svc "times" other times CLASS E.

When a part-time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700' or 1200' AGL. This will be formatted as:

 $\textbf{AIRSPACE: CLASS C} \text{ svc ''times'' ctc } \textbf{APP CON} \text{ other times CLASS G, with CLASS E 700' (or 1200') AGL \& abv: } \textbf{AIRSPACE: CLASS C} \textbf{APP CON} \text{ other times CLASS G, with CLASS E 700' (or 1200') AGL \& abv: } \textbf{AIRSPACE: CLASS C} \textbf{APP CON} \text{ other times CLASS G, with CLASS E 700' (or 1200') AGL & abv: } \textbf{AIRSPACE: CLASS C} \textbf{APP CON} \text{ other times CLASS G, with CLASS E 700' (or 1200') AGL & abv: } \textbf{AIRSPACE: CLASS C} \textbf{APP CON} \text{ other times CLASS G, with CLASS E 700' (or 1200') AGL & abv: } \textbf{AIRSPACE: CLASS C} \textbf{APP CON} \text{ other times CLASS G, with CLASS E 700' (or 1200') AGL & abv: } \textbf{AIRSPACE: CLASS C} \textbf{APP CON} \text{ other times CLASS C, with CLASS E 700' (or 1200') AGL & abv: } \textbf{AIRSPACE: CLASS C, with C, with Class C, with C, with$ 

0

AIRSPACE: CLASS D svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv:

AI

AIRSPACE: CLASS E svc "times" other times CLASS G with CLASS E 700' (or 1200') AGL & abv.

NOTE: AIRSPACE SVC "TIMES" INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part-time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part-time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.

NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.

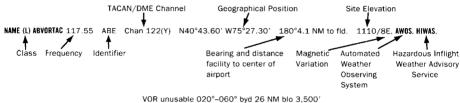
Class E 700′ AGL (shown as magenta vignette on sectional charts) and 1200′ AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700′/1200′ AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.

(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)



The Airport/Facility Directory lists, by facility name, all Radio Aids to Navigation that appear on National Aeronautical Charting Office Visual or IFR Aeronautical Charts and those upon which the FAA has approved an Instrument Approach Procedure, with exception of selected TACANs. Military TACAN information will be published for Military facilities contained in this publication. All VOR, VORTAC, TACAN, ILS and MLS equipment in the National Airspace System has an automatic monitoring and shutdown feature in the event of malfunction. Unmonitored, as used in this publication, for any navigational aid, means that monitoring personnel cannot observe the malfunction or shutdown signal. The NAVAID NOTAM file identifier will be shown as "NOTAM FILE IAD" and will be listed on the Radio Aids to Navigation line. When two or more NAVAIDS are listed and the NOTAM file identifier is different from that shown on the Radio Aids to Navigation line, it will be shown with the NAVAID listing. NOTAM file identifiers for ILSs and its components (e.g., NDB (LOM) are the same as the associated airports and are not repeated. Automated Surface Observing System (ASOS), Automated Weather Observing System (AWOS), and Hazardous Inflight Weather Advisory Service (HIWAS) will be shown when this service is broadcast over selected NAVAIDs.

NAVAID information is tabulated as indicated in the following sample:



Restriction within the normal altitude/range of the navigational aid (See primary alphabetical listing for restrictions on VORTAC and VOR/DME).

Note: Those DME channel numbers with a (Y) suffix require TACAN to be placed in the "Y" mode to receive distance information

HIWAS—Hazardous Inflight Weather Advisory Service is a continuous broadcast of inflight weather advisories including summarized SIGMETs, convective SIGMETs, AIRMETs and urgent PIREPs. HIWAS is presently broadcast over selected VOR's and will be implemented throughout the conterminous U.S.

ASR/PAR—Indicates that Surveillance (ASR) or Precision (PAR) radar instrument approach minimums are published in the U.S. Terminal Procedures. Only part-time hours of operation will be shown.

#### RADIO CLASS DESIGNATIONS

VOR/DME/TACAN Standard Service Volume (SSV) Classifications

| SSV Class         | Altitudes          | Distance |  |
|-------------------|--------------------|----------|--|
|                   |                    | (NM)     |  |
| (T) Terminal      | 1000' to 12,000'   | 25       |  |
| (L) Low Altitude  | 1000' to 18,000'   | 40       |  |
| (H) High Altitude | 1000' to 14,500'   | 40       |  |
|                   | 14,500' to 18,000' | 100      |  |
|                   | 18,000' to 45,000' | 130      |  |
|                   | 45.000' to 60.000' | 100      |  |

NOTE: Additionally, (H) facilities provide (L) and (T) service volume and (L) facilities provide (T) service. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility.

#### CONTINUED ON NEXT PAGE

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The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

| *       |  |
|---------|--|
| AB      | Automatic Weather Broadcast.   |
| DF      | Direction Finding Service.   |
| DME     | UHF standard (TACAN compatible) distance measuring equipment.  |
| DME(Y)  | UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the "Y" mode to receive DME. |
| GS      | Glide slope.   |
| Н       | Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).                     |
| HH      | Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).                                   |
| H-SAB   | Non-directional radio beacons providing automatic transcribed weather service.   |
| ILS     | Instrument Landing System (voice, where available, on localizer channel).  |
| IM      | Inner marker.  |
| ISMLS   | Interim Standard Microwave Landing System.   |
| LDA     | Localizer Directional Aid.   |
| LMM     | Compass locator station when installed at middle marker site (15 NM at all altitudes).                                       |
| LOM     | Compass locator station when installed at outer marker site (15 NM at all altitudes).  |
| MH      | Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).                                     |
| MLS     | Microwave Landing System.  |
| MM      | Middle marker.   |
| OM      | Outer marker.  |
| S       | Simultaneous range homing signal and/or voice.   |
| SABH    | Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.                           |
| SDF     | Simplified Direction Facility.   |
| TACAN   | UHF navigational facility-omnidirectional course and distance information.   |
| VOR     | VHF navigational facility-omnidirectional course only.   |
| VOR/DME | Collocated VOR navigational facility and UHF standard distance measuring equipment.  |
| VORTAC  | Collocated VOR and TACAN navigational facilities.  |
| W       |  |
| Z       | VHF station location marker at a LF radio facility.  |
|         | ·  |

#### ILS FACILITY PEFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A-4 NM prior to runway threshold, B-3500 ft prior to runway threshold, C-glide angle dependent but generally 750–1000 ft prior to threshold, T-runway threshold, D-3000 ft after runway threshold, and E-2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:



#### FREQUENCY PAIRING PLAN AND MLS CHANNELING

| I REGULTOT I AIRTING I LAN AND MES CHARRELING |           |         |         |           |         |         |           |         |
|---|-----------|---------|---------|-----------|---------|---------|-----------|---------|
| MLS   | VHF       | TACAN   | MLS     | VHF       | TACAN   | MLS     | VHF       | TACAN   |
| CHANNEL                                       | FREQUENCY | CHANNEL | CHANNEL | FREQUENCY | CHANNEL | CHANNEL | FREQUENCY | CHANNEL |
| 500   | 108.10    | 18X     | 568     | 109.45    | 31Y     | 636     | 114.15    | 88Y     |
| 502   | 108.30    | 20X     | 570     | 109.55    | 32Y     | 638     | 114.25    | 89Y     |
| 504   | 108.50    | 22X     | 572     | 109.65    | 33Y     | 640     | 114.35    | 90Y     |
| 506   | 108.70    | 24X     | 574     | 109.75    | 34Y     | 642     | 114.45    | 91Y     |
| 508   | 108.90    | 26X     | 576     | 109.85    | 35Y     | 644     | 114.55    | 92Y     |
| 510   | 109.10    | 28X     | 578     | 109.95    | 36Y     | 646     | 114.65    | 93Y     |
| 512   | 109.30    | 30X     | 580     | 110.05    | 37Y     | 648     | 114.75    | 94Y     |
| 514   | 109.50    | 32X     | 582     | 110.15    | 38Y     | 650     | 114.85    | 95Y     |
| 516   | 109.70    | 34X     | 584     | 110.25    | 39Y     | 652     | 114.95    | 96Y     |
| 518   | 109.90    | 36X     | 586     | 110.35    | 40Y     | 654     | 115.05    | 97Y     |
| 520   | 110.10    | 38X     | 588     | 110.45    | 41Y     | 656     | 115.15    | 98Y     |
| 522   | 110.30    | 40X     | 590     | 110.55    | 42Y     | 658     | 115.25    | 99Y     |
| 524   | 110.50    | 42X     | 592     | 110.65    | 43Y     | 660     | 115.35    | 100Y    |
| 526   | 110.70    | 44X     | 594     | 110.75    | 44Y     | 662     | 115.45    | 101Y    |
| 528   | 110.90    | 46X     | 596     | 110.85    | 45Y     | 664     | 115.55    | 102Y    |
| 530   | 111.10    | 48X     | 598     | 110.95    | 46Y     | 666     | 115.65    | 103Y    |
| 532   | 111.30    | 50X     | 600     | 111.05    | 47Y     | 668     | 115.75    | 104Y    |
| 534   | 111.50    | 52X     | 602     | 111.15    | 48Y     | 670     | 115.85    | 105Y    |
| 536   | 111.70    | 54X     | 604     | 111.25    | 49Y     | 672     | 115.95    | 106Y    |
| 538   | 111.90    | 56X     | 606     | 111.35    | 50Y     | 674     | 116.05    | 107Y    |
| 540   | 108.05    | 17Y     | 608     | 111.45    | 51Y     | 676     | 116.15    | 108Y    |
| 542   | 108.15    | 18Y     | 610     | 111.55    | 52Y     | 678     | 116.25    | 109Y    |
| 544   | 108.25    | 19Y     | 612     | 111.65    | 53Y     | 680     | 116.35    | 110Y    |
| 546   | 108.35    | 20Y     | 614     | 111.75    | 54Y     | 682     | 116.45    | 111Y    |
| 548   | 108.45    | 21Y     | 616     | 111.85    | 55Y     | 684     | 116.55    | 112Y    |
| 550   | 108.55    | 22Y     | 618     | 111.95    | 56Y     | 686     | 116.65    | 113Y    |
| 552   | 108.65    | 23Y     | 620     | 113.35    | 80Y     | 688     | 116.75    | 114Y    |
| 554   | 108.75    | 24Y     | 622     | 113.45    | 81Y     | 690     | 116.85    | 115Y    |
| 556   | 108.85    | 25Y     | 624     | 113.55    | 82Y     | 692     | 116.95    | 116Y    |
| 558   | 108.95    | 26Y     | 626     | 113.65    | 83Y     | 694     | 117.05    | 117Y    |
| 560   | 109.05    | 27Y     | 628     | 113.75    | 84Y     | 696     | 117.15    | 118Y    |
| 562   | 109.15    | 28Y     | 630     | 113.85    | 85Y     | 698     | 117.25    | 119Y    |
| 564   | 109.25    | 29Y     | 632     | 113.95    | 86Y     |         |           |         |
| 566   | 109.35    | 30Y     | 634     | 114.05    | 87Y     |         |           |         |
|   |           |         |         |           |         |         |           |         |

#### FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channels.

| TACAN   | VHF       | MLS     | TACAN   | VHF       | MLS     | TACAN   | VHF       | MLS     |
|---------|-----------|---------|---------|-----------|---------|---------|-----------|---------|
| CHANNEL | FREQUENCY | CHANNEL | CHANNEL | FREQUENCY | CHANNEL | CHANNEL | FREQUENCY | CHANNEL |
| 2X      | 134.5     | -       | 19Y     | 108.25    | 544     | 25X     | 108.80    | -       |
| 2Y      | 134.55    | -       | 20X     | 108.30    | 502     | 25Y     | 108.85    | 556     |
| 11X     | 135.4     | -       | 20Y     | 108.35    | 546     | 26X     | 108.90    | 508     |
| 11Y     | 135.45    | -       | 21X     | 108.40    | -       | 26Y     | 108.95    | 558     |
| 12X     | 135.5     | -       | 21Y     | 108.45    | 548     | 27X     | 109.00    | -       |
| 12Y     | 135.55    | -       | 22X     | 108.50    | 504     | 27Y     | 109.05    | 560     |
| 17X     | 108.00    | -       | 22Y     | 108.55    | 550     | 28X     | 109.10    | 510     |
| 17Y     | 108.05    | 540     | 23X     | 108.60    | -       | 28Y     | 109.15    | 562     |
| 18X     | 108.10    | 500     | 23Y     | 108.65    | 552     | 29X     | 109.20    | -       |
| 18Y     | 108.15    | 542     | 24X     | 108.70    | 506     | 29Y     | 109.25    | 564     |
| 19X     | 108.20    | -       | 24Y     | 108.75    | 554     | 30X     | 109.30    | 512     |

| TACAN<br>Channel | VHF<br>Frequency | MLS<br>Channel | TACAN<br>Channel | VHF<br>Frequency | MLS<br>Channel | TACAN<br>Channel | VHF<br>Frequency | MLS<br>Channel |
|------------------|------------------|----------------|------------------|------------------|----------------|------------------|------------------|----------------|
| 30Y              | 109.35           | 566            | 63X              | 133.60           | -              | 95Y              | 114.85           | 650            |
| 31X              | 109.40           | -              | 63Y              | 133.65           | -              | 96X              | 114.90           | -              |
| 31Y              | 109.45           | 568            | 64X              | 133.70           | -              | 96Y              | 114.95           | 652            |
| 32X              | 109.50           | 514            | 64Y              | 133.75           | -              | 97X              | 115.00           | -              |
| 32Y              | 109.55           | 570            | 65X              | 133.80           | -              | 97Y              | 115.05           | 654            |
| 33X              | 109.60           | -              | 65Y              | 133.85           | -              | 98X              | 115.10           | -              |
| 33Y              | 109.65           | 572            | 66X              | 133.90           | -              | 98Y              | 115.15           | 656            |
| 34X              | 109.70           | 516            | 66Y              | 133.95           | -              | 99X              | 115.20           | -              |
| 34Y              | 109.75           | 574            | 67X              | 134.00           | -              | 99Y              | 115.25           | 658            |
| 35X              | 109.80           | -              | 67Y              | 134.05           | -              | 100X             | 115.30           | -              |
| 35Y              | 109.85           | 576            | 68X              | 134.10           | -              | 100Y             | 115.35           | 660            |
| 36X              | 109.90           | 518            | 68Y              | 134.15           | -              | 101X             | 115.40           | -              |
| 36Y              | 109.95           | 578            | 69X              | 134.20           | -              | 101Y             | 115.45           | 662            |
| 37X              | 110.00           | _              | 69Y              | 134.25           | _              | 102X             | 115.50           | _              |
| 37Y              | 110.05           | 580            | 70X              | 112.30           | _              | 102Y             | 115.55           | 664            |
| 38X              | 110.10           | 520            | 70Y              | 112.35           | -              | 103X             | 115.60           | -              |
| 38Y              | 110.15           | 582            | 71X              | 112.40           | -              | 103Y             | 115.65           | 666            |
| 39X              | 110.20           | -              | 71Y              | 112.45           |                | 104X             | 115.70           | -              |
| 39Y              | 110.25           | 584            | 72X              | 112.50           |                | 104X             | 115.75           | 668            |
| 40X              | 110.20           | 522            | 72Y              | 112.55           |                | 105X             | 115.80           | -              |
| 40X<br>40Y       | 110.35           | 586            | 73X              | 112.60           | -              | 105X             | 115.85           | 670            |
| 41X              | 110.33           | 360            | 73X<br>73Y       | 112.65           | -              | 106X             | 115.85           | 670            |
| 41X<br>41Y       | 110.45           | 588            | 74X              | 112.00           | -              | 106X             | 115.95           | 672            |
|                  |                  |                |                  |                  | -              |                  |                  | 0/2            |
| 42X              | 110.50           | 524            | 74Y              | 112.75           | -              | 107X             | 116.00           |                |
| 42Y              | 110.55           | 590            | 75X              | 112.80           | -              | 107Y             | 116.05           | 674            |
| 43X              | 110.60           | -              | 75Y              | 112.85           | -              | 108X             | 116.10           | -              |
| 43Y              | 110.65           | 592            | 76X              | 112.90           | -              | 108Y             | 116.15           | 676            |
| 44X              | 110.70           | 526            | 76Y              | 112.95           | -              | 109X             | 116.20           | - 070          |
| 44Y              | 110.75           | 594            | 77X              | 113.00           | -              | 109Y             | 116.25           | 678            |
| 45X              | 110.80           |                | 77Y              | 113.05           | -              | 110X             | 116.30           |                |
| 45Y              | 110.85           | 596            | 78X              | 113.10           | -              | 110Y             | 116.35           | 680            |
| 46X              | 110.90           | 528            | 78Y              | 113.15           | -              | 111X             | 116.40           |                |
| 46Y              | 110.95           | 598            | 79X              | 113.20           | -              | 111Y             | 116.45           | 682            |
| 47X              | 111.00           | -              | 79Y              | 113.25           | -              | 112X             | 116.50           | -              |
| 47Y              | 111.05           | 600            | 80X              | 113.30           | -              | 112Y             | 116.55           | 684            |
| 48X              | 111.10           | 530            | 80Y              | 113.35           | 620            | 113X             | 116.60           | -              |
| 48Y              | 111.15           | 602            | 81X              | 113.40           | -              | 113Y             | 116.65           | 686            |
| 49X              | 111.20           | -              | 81Y              | 113.45           | 622            | 114X             | 116.70           | -              |
| 49Y              | 111.25           | 604            | 82X              | 113.50           | -              | 114Y             | 116.75           | 688            |
| 50X              | 111.30           | 532            | 82Y              | 113.55           | 624            | 115X             | 116.80           | -              |
| 50Y              | 111.35           | 606            | 83X              | 113.60           | -              | 115Y             | 116.85           | 690            |
| 51X              | 111.40           | -              | 83Y              | 113.65           | 626            | 116X             | 116.90           | -              |
| 51Y              | 111.45           | 608            | 84X              | 113.70           | -              | 116Y             | 116.95           | 692            |
| 52X              | 111.50           | 534            | 84Y              | 113.75           | 628            | 117X             | 117.00           | -              |
| 52Y              | 111.55           | 610            | 85X              | 113.80           | -              | 117Y             | 117.05           | 694            |
| 53X              | 111.60           | -              | 85Y              | 113.85           | 630            | 118X             | 117.10           | -              |
| 53Y              | 111.65           | 612            | 86X              | 113.90           | -              | 118Y             | 117.15           | 696            |
| 54X              | 111.70           | 536            | 86Y              | 113.95           | 632            | 119X             | 117.20           | -              |
| 54Y              | 111.75           | 614            | 87X              | 114.00           | -              | 119Y             | 117.25           | 698            |
| 55X              | 111.80           | -              | 87Y              | 114.05           | 634            | 120X             | 117.30           | -              |
| 55Y              | 111.85           | 616            | 88X              | 114.10           | -              | 120Y             | 117.35           | -              |
| 56X              | 111.90           | 538            | 88Y              | 114.15           | 636            | 121X             | 117.40           | -              |
| 56Y              | 111.95           | 618            | 89X              | 114.20           | -              | 121Y             | 117.45           | -              |
| 57X              | 112.00           | -              | 89Y              | 114.25           | 638            | 122X             | 117.50           | _              |
| 57Y              | 112.05           | _              | 90X              | 114.30           | -              | 122Y             | 117.55           | -              |
| 58X              | 112.10           | -              | 90Y              | 114.35           | 640            | 123X             | 117.60           | _              |
| 58Y              | 112.15           | -              | 91X              | 114.40           |                | 123Y             | 117.65           |                |
| 59X              | 112.20           |                | 91Y              | 114.45           | 642            | 124X             | 117.70           |                |
| 59Y              | 112.25           | _              | 92X              | 114.50           | U-12           | 124X             | 117.75           | -              |
| 60X              | 133.30           | -              | 92Y              | 114.55           | 644            | 125X             | 117.73           | -              |
| 60X              | 133.35           | -              | 93X              | 114.60           | 0-+            | 125X<br>125Y     | 117.85           | -              |
| 61X              | 133.40           | -              | 93X<br>93Y       | 114.65           | 646            | 126X             | 117.90           | -              |
| 61Y              | 133.40           | -              |                  |                  | 040            | 126X<br>126Y     |                  | -              |
|                  |                  | -              | 94X              | 114.70           | 649            | 1201             | 117.95           | -              |
| 62X<br>62Y       | 133.50<br>133.55 | -              | 94Y<br>95X       | 114.75<br>114.80 | 648            |                  |                  |                |
| U∠ĭ              | 133.33           | -              | ADY              | 114.80           | -              |                  |                  |                |

# 35 COMM/NAV/WEATHER REMARKS:

These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

ADDINGTON FLD (See ELIZABETHTOWN)

AIRBE N36°44.22′ W87°24.83′ NOTAM FILE HOP.

NDB (HW/LOM) 273 FK 225° 5.4 NM to Campbell AAF.

ST LOUIS L-161

CINCINNATI

**ASHLAND RGNL** (DWU) 6 NW UTC-5(-4DT) N38°33.27′ W82°44.28′ 546 B S2 **FUEL** 100LL, JET A1+ NOTAM FILE LOU

546 B S2 FUEL 100LL, JET A1+ NOTAM FILE LOU H-10G, L-26H
RWY 10-28: H5602X100 (ASPH) S-51. D-65. ST-82. DT-105 MIRL IAP

RWY 10: REIL. PAPI(P2L)—GA 4.0°TCH 53'. Tree.
RWY 28: REIL. PAPI(P2L)—GA 4.0°TCH 61'. Trees.

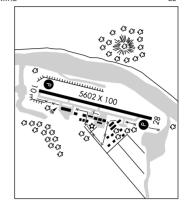
AIRPORT REMARKS: Attended Apr-Oct 1300-0100Z‡, Nov-Mar 1300-2300Z‡, For arpt svc call toll free 877-359-2745.
ACTIVATE MIRL Rwy 10-28, REIL Rwy 10 and Rwy 28, PAPI Rwy 10 and Rwy 28—CTAF. Ldg fee waived with fuel purchase. Ldg

WEATHER DATA SOURCES: AWOS-3 132.425 (606)836-2682.

R HUNTINGTON APP/DEP CON 128.4 CLNC DEL 121.7
AIRSPACE: TRSA syc ctc APP CON

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

YORK (L) VORTAC 112.8 YRK Chan 75 N38°38.65′ W82°58.70′ 120° 12.5 NM to fld. 1040/05W.



#### BARDSTOWN

SAMUELS FLD (BRY) 2 W UTC-5(-4DT) N37°48.86′ W85°29.98′

669 B S2 FUEL 100LL, JET A NOTAM FILE LOU

RWY 02-20: H5003X75 (ASPH) S-18 MIRL 0.7% up N

RWY 02: REIL. PAPI (P4L)—GA 3.5°TCH 37'. Trees.

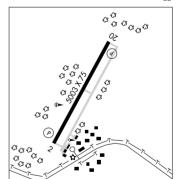
RWY 20: REIL. PAPI (P4L)—GA 3.0° TCH 28'. Trees.

AIRPORT REMARKS: Attended 1400–2300Z‡. Extensive glider activity on weekends. ACTIVATE MIRL Rwy 02–20, REIL Rwys 02 and 20—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.925 (502)348-1867.

R LOUISVILLE APP/DEP CON 132.075(E) 123.675(W) RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEW HOPE (L) VOR/DME 110.8 EWO Chan 45 N37°37.91′ W85°40.55′ 036° 13.8 NM to fld. 960/01E.



BARKLEY RGNL (See PADUCAH)

**BEAVER CREEK** N37°01.05′ W86°00.55′ NOTAM FILE LOU. NDB (MHW) 260 BVO 074° 2.9 NM to Glasgow Muni.

ST LOUIS L-16J

ST LOUIS

IAP

H-5E, 10F, L-26F

BIG SANDY RGNL (See PRESTONBURG)

**BLAYD** N37°59.22′ W84°39.63′ NOTAM FILE LEX.

NDB (MHW/LOM) 242 LE 045° 3.9 NM to Blue Grass.

CINCINNATI L-26G, 27E

BLUE GRASS (See LEXINGTON)

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BOWLING GREEN N36°55.73′ W86°26.61′ NOTAM FILE BWG. STIIOLITS (H) VORTACW 117.9 BWG Chan 126 026° 2.4 NM to Bowling Green-Warren H-5E, 6J, 9A, L-16J Co Rgnl. 565/02E. VOR unusable 152°-179° byd 30 NM blo 6500′, 330°-350° byd 20 NM blo 3000′. BOWLING GREEN-WARREN CO RGNL (BWG) 2 SE UTC-6(-5DT) N36°57.87′ W86°25.18′ ST LOUIS 547 B S4 FUEL 100LL, JET A Class IV, ARFF Index A NOTAM FILE BWG H-5E, 9A, L-16J RWY 03-21: H6500X150 (ASPH) S-25, D-38, DT-60 HIRL 0.4% up SW ΙΔΡ RWY 03: REIL. PAPI(P4L)-GA 3.0°. RWY 21: REIL. PAPI(P4L)-GA 3.0°. RWY 12-30: H3955X150 (ASPH) S-25, D-38, DT-60 MIRL RWY 12. Post RWY 30: Thid dsplcd 349'. Road. AIRPORT REMARKS: Attended continuously, 24 hr PPR for air carrier ops with more than 30 passenger seats; call arpt manager 270-842-1101. Be alert for large numbers of birds on and invof arpt. ACTIVATE HIRL Rwy 03-21, REIL Rwv 03 and Rwv 21-CTAF. WEATHER DATA SOURCES: ASOS 127.825 (270) 843-8136. COMMUNICATIONS: CTAF/UNICOM 123.0 RCO 122.4 122.2 (LOUISVILLE RADIO) (R) MEMPHIS CENTER APP/DEP CON 133.85 AIRSPACE: CLASS E continuous. RADIO AIDS TO NAVIGATION: NOTAM FILE BWG. (H) VORTACW 117.9 BWG Chan 126 N36°55.73′ W86°26.61′ 026° 2.4 NM to fld. 565/02E. NOORA NDB (LOM) 236 BW N36°52.80′ W86°28.90′ 032° 5.9 NM to fld. LOM unusable byd 10 NM. ILS 108.75 I-BWG Rwv 03. Class IB. LOM NOORA NDB. GS unusable bvd 6° either side of LOC course. COMM/NAV/WEATHER REMARKS: IFR clearances to be canceled on 122.4 Louisville FSS. BOWMAN FLD (See LOUISVILLE) BRECKINRIDGE CO (See HARDINSBURG) BRIDL N38°07.47′ W84°30.42′ NOTAM FILE LEX. CINCINNATI NDB (LOM) 340 GN 226° 7.1 NM to Blue Grass. L-26G. 27E CADI7 LAKE BARKLEY STATE PARK (1M9) 4 SW UTC-6(-5DT) N36°49.06′ W87°54.45′ ST LOUIS 570 B NOTAM FILE LOU L-161 RWY 02-20: H4800X100 (ASPH) S-30 MIRL **4**3 03 03 03 RWY 02: REIL. VASI(V2L)-GA 3.0°TCH 48'. Trees. G G **C**3 RWY 20: REIL. VASI(V2L)-GA 3.0°TCH 41'. Trees. **3 43** C3 C3 AIRPORT REMARKS: Unattended. MIRL Rwy 02-20 preset med ints €3 dusk-dawn; to increase ints ACTIVATE-123.0. Rwy 02 and Rwy C3<sup>C3</sup> €3 20 REILs out of svc indef. 43 €3 €3 WEATHER DATA SOURCES: AWOS-3 119.025 (270) 924-5916. 43 €3 ¢3 COMMUNICATIONS: CTAF/UNICOM 122.8 €3 RADIO AIDS TO NAVIGATION: NOTAM FILE CKV. €3 63 €3 CLARKSVILLE (T) VOR/DME 110.6 CKV Chan 43 N36°37.32' C3 W87°24.76' 297° 26.6 NM to fld. 540/01W. 0 Œ €3 63 **4**3 Ø €3 €3 €3 €3 C3 G G €3 Œ 03 C3 C3 €3

CAMPBELL AAF (FORT CAMPBELL) (HOP)(KHOP) A (AF)

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N36°40.34' W87°29.55'
                                                                                                    H-6K. 9A. L-16I
       573 B TPA—See Remarks AOE Class I, ARFF Index A NOTAM FILE LOU Not insp.
                                                                                                         ΠΙΔΡ ΔΠ
       RWY 05-23: H11826X200 (ASPH) PCN 120 F/A/W/T HIRL
                                       RWY 23: SALS. Rgt tfc.
         RWY 05: Thid dspled 896'.
       RWY 18-36: H4500X150 (ASPH)
                                       PCN 11 F/B/W/T
       MILITARY SERVICE: JASU 3(M-32A-86) 3(AM32-95) 1(MC-2A)
                                                               FIIFI 18
                                                                      OIL 0-123-128-148-156 SP.
       MILITARY REMARKS: See FLIP AP/1 FIt Hazard and Supplementary Arpt Remark. RSTD PPR civilian acft. CAUTION R3701
         and small arms range 1000 yd dep end Rwy 23. Twy Igt between twy feeder to Rwy 05 and Rwy 36 are NSTD
         (white), do not confuse with rwy lgt. Deer hazard, Parachuting activities/exercises, IFC PAT TPA—Rotary wing
         1300(727), fixed wing Category A, B 1600(1027), Category C, D, E, 2100(1527), overhead 2600(2027).
         CSTMS/AG/IMG Avbl 72 hr prior notice rgr military acft only, DSN 635-7146. MISC No hanger transient acft. Base
         OPS 24 hr DSN 635-7146/7147, C270-798-7146/47. 24 hr wx observation and forecast svc.
       COMMUNICATIONS: SFA ATIS 125.175 308.4 PTD 130.65 142.9 230.1 (VIP arr ctc 30 min prior to ldg.)
      R APP CON 118.1 134.35X 269.525 307.025
         TOWER 120.9 278.8 GND CON 121.8 266.8 CLNC DEL 138.8
                                                                     DEP CON 118 1 269 525
           EAGLE CON 65.2 (Opr 24 hour. Ctc prior to entry R3701, R3702—128.750 285.625.)
           PMSV METRO 343.3. (Full svc during forecast hr. Poor reception from 200°-260° byd 55 NM.)
       RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.
                                Chan 96 HXW (114.9) N36°40.54′ W87°29.70′ at fld. 572/1W.
         SCREAMING EAGLE (L) TACAN
         AIRBE NDB (HW/LOM) 273 FK N36°44.22′ W87°24.83′ 225° 5.4 NM to fld. NOTAM FILE HOP.
                            Rwy 23. LOM AIRBE NDB.
         ILS 111.9 I-FKP
       COMM/NAV/WEATHER REMARKS: Radar see Terminal FLIP for Radar Minima.
CAMPBELLSVILLE
     TAYLOR CO (AAS) 2 NE UTC-5(-4DT) N37°21.50′ W85°18.57′
                                                                                                         STIDIUS
             B FUEL 100LL, JET A1+ NOTAM FILE LOU
                                                                                                  H-5E, 10F, L-26F
       RWY 05-23: H5003X75 (ASPH)
                                   S-30 MIRL 1.0% up NE
                                                                                                             ΙΔΡ
         RWY 05: REIL. PAPI(P4L)-GA 3.50° TCH 39'. Road.
         RWY 23: REIL, PAPI(P4L)—GA 3.25° TCH 37', Trees.
       AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z‡. For arpt attendant
                                                                                             G G G
         after hrs call 270-789-1951. For fuel call 270-403-4135 or
                                                                                               G G
         270-469-0133. Fuel avbl after hrs with credit card, MIRL Rwy
                                                                                             C3
         05-23 preset on low ints: to increase ints and ACTIVATE REIL
         Rwvs 05 and 23-CTAF.
       WEATHER DATA SOURCES: AWOS-3 121.125 (270) 789-1985.
                                                                                                         'n
                                                                                           503×15
       COMMUNICATIONS: CTAF/UNICOM 122.7
                                                                                                         03
                                                                                                     œ<sub>©</sub>
                                                                           C3
                                                                        €3
      R INDIANAPOLIS CENTER APP/DEP CON 121.175
                                                                         c c
                                                                                                     63
       RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.
                                                                        a a
         NEW HOPE (L) VOR/DME 110.8 EWO Chan 45 N37°37.91'
           W85°40 55'
                        132° 24 NM to fld. 960/01E.
         NDB (MHW) 272
                        TYC N37°24.11′ W85°14.62′
                                                          232° 4.1 NM
           to fld. NDB unmonitored 2200-1300Z‡.
                                                                                ය ය
         SDF 111.1
                    I-AAS
                             Rwv 23. SDF unmonitored
           2200-1300Z‡.
                                                                                 3
     CAPITAL CITY (See FRANKFORT)
     CENTRAL CITY N37°22.95′ W87°15.82′ NOTAM FILE LOU.
                                                                                                         ST LOUIS
       (L) VORTAC 109.8 CCT
                                         257° 6.7 NM to Madisonville Muni. 450/01W.
                             Chan 35
                                                                                                           L-161
       RCO 122.1R 109.8T (LOUISVILLE RADIO)
     CINCINNATI/NORTHERN KENTUCKY INTL (See COVINGTON)
     COLUMBIA-ADAIR CO. (196)
                                    2 SW UTC-6(-5DT) N37°05.12' W85°20.83'
                                                                                                         ST LOUIS
       818 B FUEL 100LL NOTAM FILE LOU
       RWY 08-26: H2600X60 (ASPH-AFSC)
                                         S-12 MIRI
                             RWY 26: SAVASI(S2L)-GA 4.0° TCH 31'. Trees.
       AIRPORT REMARKS: Unattended. 24 hr credit card svc avbl for fuel. ACTIVATE MIRL Rwy 08-26 and SAVASI Rwy
       COMMUNICATIONS: CTAF/UNICOM 122.8
```

2 NW UTC-6(-5DT)

STIINI T2

#### COVINGTON

#### CINCINNATI/NORTHERN KENTUCKY INTL (CVG) 8 SW UTC-5(-4DT)

N39°02.93′ W84°40.07′

CINCINNATI H-10G, L-26G, 27E

896 B S4 FUEL 100LL, JET A LRA Class I, ARFF Index D RWY 09-27: H12000X150 (ASPH-CONC-GRVD) S-75, D-210,

ST-175, DT-400, DDT-850 HIRL CL

**RWY 09:** MALSR. PAPI(P4L)—GA 3.0° TCH 76'. 0.3% down.

RWY 27: MALSR(NSTD). VASI(V4L)—GA 3.0° TCH 60'.

RWY 18C-36C: H11000X150 (ASPH-CONC-GRVD) S-75, D-210, ST-175, DT-400, DDT-850 HIRL CL

RWY 18C: SSALR. TDZL. VASI(V4R)—GA 3.0°TCH 52'.

RWY 36C: ALSF2. TDZL. PAPI (P4L). 0.6% up.

**RWY 18L-36R**: H10000X150 (CONC-GRVD) S-75, D-210, ST-175,

DT-400, DDT-850 HIRL CL RWY 18L: MALSR. TDZL. PAPI (P4R).

RWY 36R: ALSF2. TDZL. PAPI (P4R).

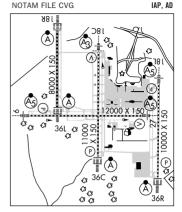
RWY 18R-36L: H8000X150 (CONC-GRVD) S-75, D-210, DT-400 DDT-850 HIRL CL

RWY 18R: ALSF2. TDZL. RWY 36L: ALSF2. TDZL. Tree.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 09: TORA-12000 TODA-12000 ASDA-11880 LDA-11880 RWY 27: TORA-12000 TODA-12000 ASDA-12000 LDA-12000

AIRPORT REMARKS: Attended continuously. Successive or simultaneous



deps from Rwy 18L/C are approved with course divergence beginning no further than 2 miles from end of rwy due to noise abatement restrictions. Successive or simultaneous departures from Rwy 36L and Rwy 36R are approved with course divergence beginning no further than 2 miles from EOR due to noise abatement restrictions. Noise sensitive areas N and S of arpt. Rwy assignments between 0300–12002‡ will be predicated on noise abatement considerations. Rwy 09–27 west 4200′ concrete, east 750′ concrete, remainder asphalt overlay. For Rwy 09–27 and Rwy 18C–36C gross weight strength for DC–10 and L–1011 aircraft is 510,000 pounds. For all rwys gross weight strength for 777 aircraft is 595,000 pounds. For all rwys gross weight strength for MD11 aircraft is 605,000 pounds. Rwy 18R touchdown, midfield and rollout runway visual range avbl. Rwy 36L touchdown, midfield and rollout runway visual range avbl. Right Notification Service (ADCUS) avbl. NOTE: See Special Notices—Noise Abatement Procedures.

WEATHER DATA SOURCES: ASOS (859) 767-8210. TDWR.

COMMUNICATIONS: D-ATIS ARR 134.375 D-ATIS DEP 135.3 UNICOM 122.95

RCO 122.1R 117.3T (LOUISVILLE RADIO)

R APP CON 123.875 (270°-089°) 119.7 (090°-269°)

TOWER 118.3 (Rwy 18C-36C and Rwy 09-27) 133.325 (Rwy 18R-36L) 118.975 (Rwy 18L-36R) GND CON 121.3 (East) 121.7 (West)

**CLNC DEL** 127.175

(R) DEP CON 128.7 (220°-040°) 126.65 (041°-219°)

AIRSPACE: CLASS B svc continuous ctc APP CON RADIO AIDS TO NAVIGATION: NOTAM FILE CVG.

(L) VORTAC 117.3 CVG Chan 120 N39°00.96′ W84°42.20′ 044° 2.6 NM to fld. 879/4W.

ILS 108.7 I-JDP Rwy 27. Class IT. LOC unusable byd 20° right of course.

ILS/DME 110.15 I-CIZ Chan 38(Y) Rwy 18L. Class IA. LOC unusable byd 25° left of course.

ILS/DME 111.55 I-SIC Chan 52(Y) Rwy 18C. Class IB.

ILS/DME 111.9 I-URN Chan 56 Rwy 09. Class IB.

 $\begin{tabular}{ll} \textbf{ILS/DME} 109.9 & I-CVG & Chan 36 & Rwy 36C. & Class IIIE. \end{tabular}$ 

ILS/DME 110.35 I-EEI Chan 40(Y) Rwy 36R. Class IIIE.

ILS/DME 110.75 I-VAC Chan 44(Y) Rwy 36L. Class IIIE

ILS/DME 110.75 I-CJN Chan 44(Y) Rwy 18R. Class IIIE.

CUMBERLAND RIVER N36°59.77′ W84°40.88′ NOTAM FILE LOU.

NDB (MHW) 388 CDX 048° 4.7 NM to Lake Cumberland Rgnl. NDB unmonitored.

CINCINNATI L-26G

CUNNINGHAM N37°00.52′ W88°50.22′ NOTAM FILE PAH.

(L) VORTACW 113.1 CNG Chan 78 041° 4.4 NM to Barkley Rgnl. 480/03E.

ST LOUIS L-16H

CYNTHIANA-HARRISON CO (ØI8) 2 S UTC-5(-4DT) N38°21.97′ W84°17.00′

721 B S2 FUEL 100LL NOTAM FILE LOU

RWY 11-29: H3852X75 (ASPH) S-16, D-25 MIRL

RWY 11: REIL. SAVASI(S2L)—GA 4.5°TCH 41'. Railroad.

RWY 29: REIL. SAVASI(S2L)—GA 5.0°TCH 33'. Thid dspicd 1095'.

Trees.

RUNWAY DECLARED DISTANCE INFORMATION

**RWY 11:** TORA-2757 TODA-3852 ASDA-3852 LDA-3852 **RWY 29:** TORA-3852 TODA-3852 ASDA-3852 LDA-2757

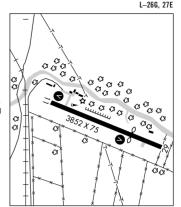
ARPORT REMARKS: Attended 1300Z‡-dusk. Fuel 24 hr credit card svc avbl. Rwy 29 Thid crossing height: TCH 33' over dsplcd thid. MIRL Rwy 11–29 preset low ints. To increase ints and ACTIVATE SAVASI

Rwys 11 and 29 and REIL Rwys 11–29 —122.9.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

**FALMOUTH (H) VOR/DME** 117.0 FLM Chan 117 N38°38.97′ W84°18.64′ 180° 17.0 NM to fld. 810/04W.



CINCINNATI

#### DANVILLE

STUART POWELL FLD (DVK) 3 S UTC-5(-4DT) N37°34.68′ W84°46.18′

1022 B S2 **FUEL** 100LL, JET A NOTAM FILE LOU

RWY 12-30: H5000X75 (ASPH) S-15.5 MIRL

RWY 12: PAPI(P4L)—GA 3.5° TCH 34'. Trees.

RWY 30: REIL. PAPI(P4L)—GA 3.0° TCH 29'.
RWY 01-19: H2357X75 (ASPH-RFSC) 0.4% up N

RWY 01: Fence. RWY 19: Thid dsplcd 552'. Hill.

AIRPORT REMARKS: Attended Sun 1700–0000Z‡, Nov-Mar Mon-Sat 1330–2200Z‡, Apr-Oct Mon-Sat 1330–0000Z‡. Aerobatic practice area over S side of arpt. Aim point markings 1200' from marked thid. ACTIVATE MIRL Rwy 12–30, PAPI Rwy 12–30 and REIL Rwy 30—CTAF.

WEATHER DATA SOURCES: AWOS-3 128.325 (859) 854-0058.

COMMUNICATIONS: CTAF/UNICOM 122.8

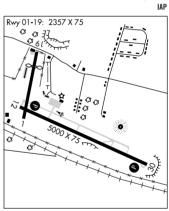
R LEXINGTON APP/DEP CON 120.15

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

**LEXINGTON (L) VORTAC** 112.6 HYK Chan 73 N37°57.98′ W84°28.35′ 211° 27.2 NM to fld. 1039/00E.

GOODALL NDB (MHW) 311  $\,$  DVK  $\,$  N37°34.59' W84°45.84' at fld. NOTAM FILE LOU.

ILS/DME 108.9 I-PQQ Chan 26 Rwy 30. LOC only.



#### DAWSON SPRINGS

TRADEWATER (8M7) 2 E UTC-6(-5DT) N37°11.34′ W87°40.50′

405 NOTAM FILE LOU

RWY 18-36: 2875X80 (TURF)

RWY 18: Trees. RWY 36: Trees.

AIRPORT REMARKS: Unattended. Rwy 18-36 Rwy edges marked by white painted tires.

COMMUNICATIONS: CTAF 122.9

ST LOUIS

CINCINNATI

H-10G, L-26G

#### **ELIZABETHTOWN**

ADDINGTON FLD (EKX) 4 W UTC-5(-4DT) N37°41.16′ W85°55.50′

775 B S4 **FUEL** 100LL, JET A NOTAM FILE LOU

**RWY 05–23**: H6001X100 (ASPH) S–35 MIRL 0.4% up NE

RWY 05: REIL. PAPI(P4L)—GA 3.0° TCH 36'. Tree.

RWY 23: REIL. PAPI(P4L)—GA 3.0° TCH 30'.

AIRPORT REMARKS: Attended Mon-Fri 1300Z‡-dusk, Sat-Sun 1400-2300Z‡. Deer and birds on and invof arpt. Parachute Jumping. MIRL Rwy 05-23 preset low intensity and REIL Rwy 05 and Rwy 23 ops dusk-dawn, to increase intensity MIRL Rwy 05-23 and ACTIVATE REIL Rwy 05-23—CTAF. PAPI Rwy 05 and

Rwy 23 ops 24 hrs.

**WEATHER DATA SOURCES:** AWOS-3 121.025 (270) 763-6433.

COMMUNICATIONS: CTAF/UNICOM 122.8

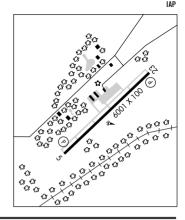
R LOUISVILLE APP/DEP CON 132.075(E) 123.675(W)

CLNC DEL 119.45 (except Sun and Mon 0500-1130Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEW HOPE (L) VOR/DME 110.8 EWO Chan 45 N37°37.91′ W85°40.55′ 284° 12.3 NM to fld. 960/01E.

ILS/DME 109.75 I-ADR Chan 34(Y) Rwy 05. (LOC only)



### FALLS-OF-ROUGH

**ROUGH RIVER STATE PARK** (213) 3 NE UTC-6(-5DT) N37°36.59′ W86°30.43′

ST LOUIS L-16J

ST LOUIS

H-5E, 10F, L-16J

577 B NOTAM FILE LOU

RWY 02-20: H3200X75 (ASPH) S-8 MIRL

RWY 02: Road. RWY 20: PAPI(P4L)—GA 3.0° TCH 28'. Tree.

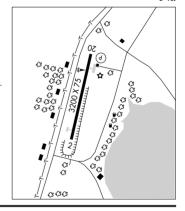
AIRPORT REMARKS: Attended continuously. UNICOM monitored irregularly.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35

N37°22.95′ W87°15.82′ 070° 38.6 NM to fld. 450/01W.



#### **FALMOUTH**

GENE SNYDER (K62) 4 NW UTC-5(-4DT) N38°42.24′ W84°23.51′

899 B FUEL 100LL NOTAM FILE LOU RWY 03: PAPI(P4L)-GA 3.5° TCH 37'. Trees.

RWY 03-21: H3994X75 (ASPH) S-12.5 MIRL 0.4% up SW

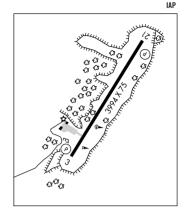
RWY 21: PAPI(P4L)-GA 3.5° TCH 41'

AIRPORT REMARKS: Attended 1300-2200Z‡. ACTIVATE MIRL Rwy 03-21-122 9

COMMUNICATIONS: CTAF/UNICOM 122.7 CINCINNATI APP/DEP CON 121.0

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

FALMOUTH (H) VOR/DME 117.0 FLM Chan 117 N38°38.97' W84°18.64' 315° 5.0 NM to fld. 810/04W.



FALMOUTH N38°38.97′ W84°18.64′ NOTAM FILE LOU.

CINCINNATI

CINCINNATI

L-26G. 27E

(H) VOR/DME 117.0 FLM Chan 117 353° 27.7 NM to Cincinnati Muni Arpt Lunken Fld, OH. H-10G, L-26G, 27E 810/04W.

RCO 122.1R 117.0T (LOUISVILLE RADIO)

FLEMING-MASON (See FLEMINGSBURG)

#### **FLEMINGSBURG**

FLEMING-MASON (FGX) 7 N UTC-5(-4DT) N38°32.51′ W83°44.60′

913 B S4 FUEL 100LL, JET A1+ NOTAM FILE LOU

RWY 07-25: H5001X75 (ASPH) S-36, D-50 MIRL RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Thid dsplcd 299'.

RWY 25: REIL. PAPI(P4L)-GA 3.0° TCH 40'.

AIRPORT REMARKS: Attended Mon-Fri 1300-2200Z‡, Sat 1500-2100,

Sun 1600-2100Z‡. For svc after hrs call 606-845-6801.

Parachute Jumping. ACTIVATE MIRL Rwy 07-25; REIL and PAPI Rwy 07 and Rwy 25-CTAF.

WEATHER DATA SOURCES: AWOS-3 118.125 (606) 742-2008.

COMMUNICATIONS: CTAF/UNICOM 123.0

INDIANAPOLIS CENTER APP/DEP CON 124.225

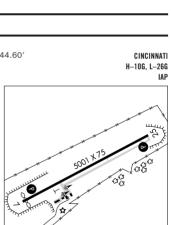
RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

FALMOUTH (H) VOR/DME 117.0 FLM Chan 117 N38°38.97'

W84°18.64' 107° 27.5 NM to fld. 810/04W.

FLMNG NDB (MHW/LOM) 400 XW N38°34.42′ W83°38.82′ 252° 4.9 NM to fld. NDB unusable 030°-120° bvd 10 NM.

ILS 109.15 I-XWI Rwy 25. Localizer only. LOM FLMNG NDB.



**FLMNG** N38°34.42′ W83°38.82′ NOTAM FILE LOU.

NDB (MHW/LOM) 400 XW 252° 4.9 NM to Fleming-Mason. NDB unusable 030°-120° byd 10 NM. CINCINNATI L-26G

FORT CAMPBELL (See CAMPBELL AAF)

FORT KNOX N37°54.45′ W85°58.37′ NOTAM FILE FTK.

(T) VOR/DME 109.6 FTK Chan 33 at Godman AAF. 740/01W.

ST LOUIS L-16J

#### **FRANKFORT**

CAPITAL CITY (FFT) 1 SW UTC-5(-4DT) N38°10.92′ W84°54.37′

806 B S4 FUEL 100LL, JET A1+ TPA-1802(996) NOTAM FILE FFT

H-10G, L-26G, 27E ΙΔΡ

CINCINNATI

RWY 06-24: H5905X100 (ASPH) S-44, D-51, DT-82 MIRL 0.5% up SW RWY 06: REIL. PAPI(P4L)-GA 3.0° TCH 31'. Trees.

RWY 24: REIL. PAPI(P4L)-GA 3.5° TCH 34'. Pole.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 06: TORA-5500 TODA-5500 ASDA-5500 LDA-5500 RWY 24: TORA-5900 TODA-5900 ASDA-5900 LDA-5900

AIRPORT REMARKS: Attended 1100-0300Z‡. Deer and birds on and

invof arpt. Rwy 06 departures maintain rwy heading until 1000 AGL before making turn on course. P-line 742 ft from Rwv 24 end Igtd. ACTIVATE MIRL Rwy 06-24, PAPI Rwy 06 and Rwy 24, and REIL Rwv 06 and Rwv 24-CTAF.

WEATHER DATA SOURCES: ASOS 119.275 (502) 227-5087 COMMUNICATIONS: CTAF/UNICOM 122.8

RCO 122.1R 109.4T (LOUISVILLE RADIO)

R LEXINGTON APP/DEP CON 120.75 CLNC DEL 118.1

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

LEXINGTON (L) VORTAC 112.6 HYK Chan 73 N37°57.98' W84°28.35' 302° 24.3 NM to fld. 1039/00E.

FRANKFORT (T) VOR 109.4 FFT N38°10.95′ W84°54.52′ fld. VOR unusable 001°-104° bvd 10 NM blo 6000′. 105°-360° blo 6.000'. NOTAM FILE LOU.

ILS/DME 109.95 I-FFT Chan 36(Y) Rwy 24. LOC only. . . . . . . . . . . . . . . .

HELIPAD H1: H100X100 (CONC)

HELIPORT REMARKS: Uncontrolled military helicopter traffic N of Rwy 06-24. Daniel Boone Heliport located one-half NM North of Rwy 24 thld. Military helicopters use right base to Rwy 24.

FRANKFORT N38°10.95′ W84°54.52′ NOTAM FILE LOU. CINCINNATI L-26G, 27E

(T) VOR 109.4 FFT at Capital City. VOR unusable 001°-104° byd 10 NM blo 6000′, 105°-360° blo 6000'.

RCO 122.1R 109.4T (LOUISVILLE RADIO)

FULTON (1M7) 2 NW UTC-6(-5DT) N36°31.55′ W88°54.94′

ST LOUIS

400 B S2 FUEL 100LL NOTAM FILE LOU

RWY 09-27: H2700X60 (ASPH) S-12 MIRL

RWY 09: REIL. VASI(V2L). Trees. RWY 27: REIL. VASI(V2L). Road.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 09-27 and REIL Rwys 09 and 27—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.7

GENE SNYDER (See FALMOUTH)

**GENEVA** N37°48.19′ W87°46.25′ NOTAM FILE LOU. STIINI TR L-161

NDB (MHW) 224 GVA 087°4.1 NM to Henderson City-Co. SHUTDOWN.

**GEORGETOWN SCOTT CO-MARSHALL FLD** (27K) 6 E UTC-5(-4DT) N38°14.07′ W84°26.08′

947 B FUEL 100LL, JET A NOTAM FILE LOU

RWY 03-21: H5498X100 (ASPH) S-30 HIRL 0.3% up NE

RWY 03: REIL. PAPI(P4L)-GA 3.0° TCH 34'.

RWY 21: REIL. PAPI(P4L)-GA 3.0° TCH 30'. Trees.

AIRPORT REMARKS: Attended 1300–0200Z‡. Rwy 03–21 SW 1500′ unigtd. For fuel after hrs call 859–608–8858. Fee charged.

ACTIVATE HIRL Rwy 03–21; PAPI Rwy 03 and Rwy 21 REIL Rwy 03 and Rwy 21 and Igtd wind sock—CTAF.

weather data sources: AWOS-3 119.975 (502) 867-1564.

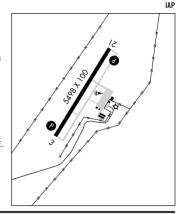
COMMUNICATIONS: CTAF/UNICOM 123.0 (R) LEXINGTON APP/DEP CON 120.75 (221°-039°) 120.15 (040°-220°)

CLNC DEL 127.425

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

LEXINGTON (L) VORTAC 112.6 HYK Chan 73

N37°57.98′ W84°28.35′ 006° 16.2 NM to fld. 1039/00E.



CINCINNATI

ST LOUIS

H-10G, L-26G, 27E

#### **GILBERTSVILLE**

KENTUCKY DAM STATE PARK (M34) 1 NW UTC-6(-5DT) N37°00.58′ W88°17.96′

349 B NOTAM FILE LOU

RWY 09-27: H4000X100 (ASPH) S-12.5 MIRL

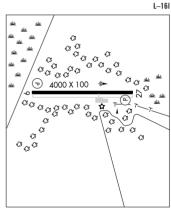
**RWY 09:** REIL. PAPI(P4L)—GA 4.0° TCH 21'. Trees. **RWY 27:** REIL. PAPI(P4L)—GA 4.0° TCH 21'. Trees.

AIRPORT REMARKS: Unattended. Deer and large flocks of geese on and invof arpt. MIRL Rwy 09–27 preset med ints; to increase ints and ACTIVATE REIL Rwy 09–27—CTAF.

WEATHER DATA SOURCES: AWOS-3 119.075 (270) 362-9685. OTS indef. Communications: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE PAH.

**CUNNINGHAM (L) VORTACW** 113.1 CNG Chan 78 N37°00.52′ W88°50.22′ 087° 25.8 NM to fld. 480/03E.



### GLASGOW MUNI (GLW) 2 NW UTC-6(-5DT) N37°01.91′ W85°57.23′

716 B S2 FUEL 100LL, JET A+ NOTAM FILE LOU

RWY 07-25: H5301X100 (ASPH) S-30 HIRL

RWY 07: REIL. PAPI(P2L)—GA 3.0°TCH 26′.

RWY 25: REIL. PAPI(P2L)—GA 3.25° TCH 29′. Thid dspicd 301′.

ROAD.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 07: TORA-5301 TODA-5301 ASDA-5000 LDA-5000

RWY 25: TORA-5301 TODA-5301 ASDA-5301 LDA-5000

AIRPORT REMARKS: Attended Mon-Sat 1400-2300Z‡. For svc after hrs call 270-678-4400. Parachute Jumping. Rwy 25 NSTD location of dspicd thild markings 40′ from dspicd thid lgts (Igts in correct

position at 288' markings at 328'). HIRL Rwy 07–25 preset low ints, to increase ints and ACTIVATE REIL Rwy 07 and Rwy

WEATHER DATA SOURCES: AWOS-3 118.525 (270) 678-5787. COMMUNICATIONS: CTAF/UNICOM 122.8

R MEMPHIS CENTER APP/DEP CON 132.1

25-CTAF.

RADIO AIDS TO NAVIGATION: NOTAM FILE BWG.

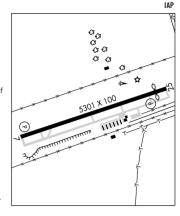
RADIO AIDS TO NAVIGATION: NOTANT FILE BWG.

BOWLING GREEN (H) VORTACW 117.9 BWG Chan

126 N36°55.73′ W86°26.61′ 073° 24.3 NM to fld. 565/02E. BEAVER CREEK NDB (MHW) 260 BVO N37°01.05′ W86°00.55′

074° 2.8 NM to fld. NOTAM FILE LOU.

SDF 108.5 GLW Rwy 07. SDF unmonitored 2200-1300Z‡.



STIIOLITS

SILIO I TS

H-5E, 10F, L-16J DIAP

H-5E, 9A, L-16J

GODMAN AAF (FTK)(KFTK) A 1 W UTC-5(-4DT) N37°54.42′ W85°58.32′
756 B NOTAM FILE FTK Not insp.

RWY 18-36: H5185X150 (ASPH) PCN 120 F/A/W/T HIRL

RWY 18-33: H4853X75 (ASPH) PCN 120 F/A/W/T HIRL

RWY 15-33: H4853X75 (ASPH) PCN 120 F/A/W/T HIRL

RWY 15: REIL.

RWY 99-27: H4999X150 (PEM) PCN 10 F/A/W/T

RWY 05-23: H1900X90 (ASPH) PCN 12 F/A/W/T

MILITARY SERVICE: JASU 1(AGPU) FUEL J8 AvbI Mon-Sun 1100-0300Z‡ excluding Federal holidays. OIL 0-156

MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Remarks. Ctc twr prior to engine start. Restricted area 1 NM

SE of airfield.RSTD Rwy 09-27 CLOSED until further notice. Official Business Only, PPR, DSN 464-5545,

C502-624-5545. Inbound acft Code 7 or abv ctc Base OPS 20 minutes prior to ldg. CAUTION Do not overfly the

Gold Depository located 1 NM south of apch end Rwy 36. TFC PAT West side of airfield. MISC Wx forecast

1200-0100Z‡. Visibility restricted to ½6 NM due to hangar. FMQ-19 Wx Sensor and Runway Visual Range
sensor located near mid-field, all readings are taken from that point. Wx observation automated and augmented
as required. Ctc Gnd prior to engine start. Other times ctc Scott OWS DSN 576-9755/9702,

C618-256-9755/9702 HTTPS://150WS.SCOTT.AF.MIL-FMQ-19 in use.

COMMUNICATIONS: CTAF 133.35 233.7 ATIS 109.6 (Mon-Fri 1100-0300Z‡, Sat-Sun 1200-2000Z‡ excluding holidays.)

R LOUISVILLE APP/DEP CON 123.675 132.07 327.0

TOWER 133.35 233.7 (Mon-Fri 1100-0300Z‡, Sat-Sun 1200-2000Z‡ except hols. Other times ctc Godman Advisory svc on twr freq). GND CON 121.9 239.3 PMSV METRO 139.65 (Full svc during forecast hours.) OPS 126.2 234.4 AIR TO AIR 237.5

AIRSPACE: CLASS D svc Mon-Fri 1100-0300Z‡, Sat-Sun 1200-2000Z‡ except holidays other times CLASS E. RADIO AIDS TO NAVIGATION: NOTAM FILE FTK.

FORT KNOX (T) VOR/DME 109.6 FTK Chan 33 N37°54.45′ W85°58.37′ at fld. 740/1W.

MYSTIC (L) VOR 108.2 MYS N37°53.64′ W86°14.67′ 087° 13.0 NM to fld. NOTAM FILE LOU.

NDB (MHW) 396 GOI N37°57.52′ W85°58.60′ 178° 3.1 NM to fld.

GOODALL N37°34.59′W84°45.84′ NOTAM FILE LOU.

NDB (MHW) 311 DVK at Stuart Powell Fid.

CINCINNATI L-26G

GRAYSON CO (See LEITCHFIELD)

#### **GREENVILLE**

MUHLENBERG CO (M21) 2 NE UTC-6(-5DT) N37°13.57′ W87°09.38′

422 B S4 FUEL 100LL, JET A NOTAM FILE LOU

RWY 05-23: H5000X75 (ASPH) S-28 MIRI

RWY 05: REIL. SAVASI(S2L)-GA 5.0° TCH 30'. Road.

RWY 23: REIL. SAVASI(S2L)—GA 5.0° TCH 25'. Thid dspicd 400'.

AIRPORT REMARKS: Attended 1400-2300Z‡. Prior arrangement for svc after hr call 270-338-9419. 100LL fuel self serve 24 hrs with credit card. JET A fuel avbl on reg during hrs arpt attended. For JET A fuel and other svc after hrs call 270-543-5198. Parachute Jumping, Marked and Igtd p-line under Rwy 05 apch 1000' from rwy end. ACTIVATE MIRL Rwy 05-23; SAVASI and REIL Rwys 05 and 23-CTAF.

WEATHER DATA SOURCES: AWOS-3 120.375 (270) 338-7788.

COMMUNICATIONS: CTAF/UNICOM 123.0

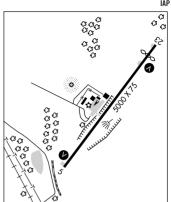
R EVANSVILLE APP/DEP CON 126.4 (1200-0500Z±)

R MEMPHIS CENTER APP/DEP CON 133.85. (0500-1200Z±)

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35 N37°22.95' W87°15.82' 152° 10.7 NM to fld. 450/01W.

NDB (MHW) 362 GMH N37°13.62′ W87°09.55′ at fld VFR only.



#### HANCOCK CO-RON LEWIS FLD (See LEWISPORT)

#### HARDINSBURG

BRECKINRIDGE CO (193) 1 E UTC-6(-5DT) N37°47.10′ W86°26.52′

735 NOTAM FILE LOU

RWY 09-27: H3500X75 (ASPH) S-5 LIRL

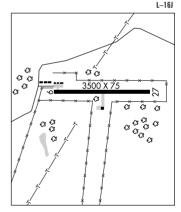
RWY 27: Trees. RWY 09: Road.

AIRPORT REMARKS: Unattended. Rwy 09-27 open cracks, raveling.

COMMUNICATIONS: CTAF 122 9

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEW HOPE (L) VOR/DME 110.8 EWO Chan 45 N37°37.91' W85°40.55' 283° 37.6 NM to fld. 960/01E.



#### HARLAN

TUCKER-GUTHRIE MEML (135) 2 NW UTC-5(-4DT) N36°51.56′ W83°21.51′

CINCINNATI L-26H

1551 FUEL JET A NOTAM FILE LOU

RWY 08-26: H2700X75 (ASPH) S-24 1 0% down SW

RWY 08: VASI (NSTD). Trees. RWY 26: Thid dsplcd 670'. Trees.

AIRPORT REMARKS: Attended 1400Z‡-dusk. CAUTION—Arpt located in mountainous terrain, possible turbulence. Rwy 08 2-box VASI on both sides of rwy for day use only. ACTIVATE VASI Rwy 08—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

ST LOUIS H-5E. 9A. L-16I

ΙΔΡ

ST LOUIS

### HARTFORD

OHIO CO (7K4) 3 NE UTC-6(-5DT) N37°27.50′ W86°51.00′ 535 B S4 FUEL 100LL, JET A OX 1 NOTAM FILE LOU RWY 03-21: H4818X60 (ASPH) S-12.5 MIRL

RWY 03: PAPI(P2L)-GA 3.0° TCH 40'.

RWY 21: PAPI(P2L)-GA 4.0° TCH 44'. Trees.

AIRPORT REMARKS: Attended 1400–2300Z‡. Deer on and invof arpt. For after hours svc call 270–298–3500. ACTIVATE MIRL Rwy 03–21 and PAPI Rwys 03 and 21—CTAF. Lgts also avbl by phone request by calling 270–298–3500.

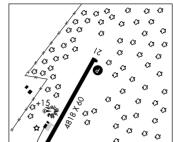
COMMUNICATIONS: CTAF/UNICOM 122.8

EVANSVILLE APP/DEP CON 126.4 (1200-0500Z±)

INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35 N37°22.95′ W87°15.82′ 078° 20.3 NM to fld. 450/01W.



### HAZARD

WENDELL H FORD (K2Ø) 10 NW UTC-5(-4DT) N37°23.24′ W83°15.70′

1253 B S2 **FUEL** 100LL, JET A+ NOTAM FILE LOU **RWY 14–32**: H5500X100 (ASPH) S–30 MIRL

RWY 14: REIL. PAPI(P4L)—GA 3.0° TCH 29'. Trees.

RWY 32: REIL. PAPI(P4R)—GA 4.0. TCH 38'. Hill.

RWY 06-24: H3250X60 (ASPH) S-12

RWY 06: Thid dspicd 277'. RWY 24: Thid dspicd 282'. Trees. AIRPORT REMARKS: Attended 1300–dusk. Rwy 06–24 moderate cracking. Rwy 06 dspicd thid lgts 65 ft W of marked dspicd thid. Rwy 24 dspicd thid lgts 10 ft E of marked dspicd thid. Rwy 32 PAPI unusable byd 2.5 NM. Unusable byd 7° right of final and byd 5° left of final. ACTIVATE MIRL Rwy 14–32, REIL Rwy 14 and Rwy 32, PAPI Rwy 14 and Rwy 32—CTAF. Ldg fee: ramp fees.

WEATHER DATA SOURCES: AWOS-3 119.025 (606) 435-2452.

COMMUNICATIONS: CTAF/UNICOM 122.7

HAZARD RCO 122.1R 111.2T (LOUISVILLE RADIO)

R INDIANAPOLIS CENTER APP/DEP CON 126.575.

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

**HAZARD (L) VOR/DME** 111.2 AZQ Chan 49 N37°23.48′ W83°15.78′ at fld. 1247/04W.

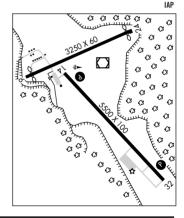
CINCINNATI H-10g, 12g, L-26h

. G G

ST LOUIS

L-161

ΙΔΡ



HAZARD N37°23.48′ W83°15.78′ NOTAM FILE LOU.

(L) VOR/DME 111.2 AZQ Chan 49 at Wendell H Ford. 1247/04W.

DME unusable byd 25 NM blo 4500'.

RCO 122.1R 111.2T (LOUISVILLE RADIO)

CINCINNATI L-26H

HENDERSON CITY-CO (EHR) 4 W UTC-6(-5DT) N37°48.47′ W87°41.14′

387 B S3 FUEL 100, JET A OX 3 NOTAM FILE EHR RWY 09-27: H5504X100 (ASPH) S-30 MIRL

RWY 09: REIL. PAPI(P4L)-GA 3.0° TCH 47'.

RWY 27: REIL. Road.

AIRPORT REMARKS: Attended Mon-Fri 1300Z‡-dusk, Sat-Sun

1400Z‡—dusk. MIRL Rwy 09-27 preset on low ints; to increase ints-CTAF. ACTIVATE PAPI Rwy 09 and REIL Rwy 09 and Rwy

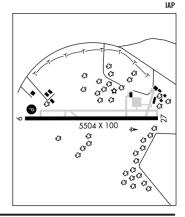
WEATHER DATA SOURCES: AWOS-3 128.175 (270) 826-0511. COMMUNICATIONS: CTAF/UNICOM 122.8

- R EVANSVILLE APP/DEP CON 126.4 (1200-0500Z‡)
- R INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

POCKET CITY (H) VORTACW 113.3 PXV Chan 80 N37°55.70' W87°45.74' 150° 8.1 NM to fld. 384/03E. 2AWIH

GENEVA NDB (MHW) 224 GVA N37°48.19′ W87°46.25′ 087° 4.1 NM to fld. NOTAM FILE LOU. SHUTDOWN.



HIGUY N37°38.14′ W87°09.73′ NOTAM FILE OWB.

NDB (LOM) 341 OW 360° 6.3 NM to Owensboro-Daviess Co. ST LOUIS

STIINI T2

H-5E, L-16I

HONEY GROVE N36°52.84′ W87°20.25′ NOTAM FILE LOU.

NDB (MHW) 356 HIX 257° 5.8 NM to Hopkinsville-Christian Co.

ST LOUIS L-161

HOPKINSVILLE-CHRISTIAN CO (HVC) 2 E UTC-6(-5DT) N36°51.42′ W87°27.31′

564 B FUEL 100LL, JET A+ NOTAM FILE LOU

RWY 08-26: H5505X100 (ASPH) S-14 MIRL 0.5% up E

RWY 08: REIL. PAPI (P4L)-GA 3.5° TCH 38'. Trees.

RWY 26: REIL. PAPI (P4L)-GA 4.0° TCH 34'.

AIRPORT REMARKS: Attended 1400-0100Z‡, Parachute Jumping. ACTIVATE MIRL Rwy 08-26 and REIL Rwy 08 and Rwy 26-122.8.

WEATHER DATA SOURCES: AWOS-3 132.575 (270) 886-6311.

COMMUNICATIONS: CTAF/UNICOM 122.8

(R) CAMPBELL APP/DEP CON 118.1 CLNC DEL 120.9

RADIO AIDS TO NAVIGATION: NOTAM FILE CKV.

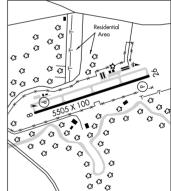
CLARKSVILLE (T) VOR/DME 110.6 CKV Chan 43 N36°37.32' W87°24.76′ 353° 14.2 NM to fld. 540/01W.

HONEY GROVE NDB (MHW) 356 HIX N36°52.84′ W87°20.25′ 257° 5.8 NM to fld. NOTAM FILE LOU.

ILS 109.1 I-HVC Rwy 26. Localizer only.

COMM/NAV/WEATHER REMARKS: Key mike 3 times and wait for Clnc Del. CLNC DEL OTS indef.

STIINI T2 H-6K, 9A, L-16I IAP €3 (3 €3



### **JACKSON**

JULIAN CARROLL (JKL) 4 NE UTC-5(-4DT) N37°35.63′ W83°19.04′ 1381 B NOTAM FILE JKL

RWY 01-19: H4400X75 (ASPH) S-12.5 MIRL 0.6% up N

RWY 01: REIL. Trees. RWY 19: REIL.

AIRPORT REMARKS: Attended continuously. MIRL Rwy 01–19 OTS indef. REIL Rwy 01 and Rwy 19 OTS indef. ACTIVATE MIRL Rwy 01–19 and REIL Rwy 01 and Rwy 19—CTAF.

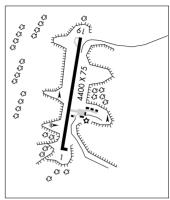
WEATHER DATA SOURCES: ASOS 118.375 (606) 666-2794

COMMUNICATIONS: CTAF/UNICOM 122.8

R INDIANAPOLIS CENTER APP/DEP CON 126.57

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

HAZARD (L) VOR/DME 111.2 AZQ Chan 49 N37°23.48′ W83°15.78′ 352° 12.4 NM to fld. 1247/04W.



CINCINNATI

L-26H IAP

### **JAMESTOWN**

RUSSELL CO (K24) 2 NW UTC-6(-5DT) N37°00.58′ W85°06.16′

1011 B S4 **FUEL** 100LL, JET A NOTAM FILE LOU

RWY 17-35: H5000X75 (ASPH) S-12 MIRL 1.0% up N RWY 17: REIL. PAPI(P4L)-GA 4.0° TCH 36'. Trees.

RWY 35: REIL. PAPI(P4L)-GA 3.0° TCH 39'. Trees.

AIRPORT REMARKS: Attended 1400-2300Z‡. Fuel after hrs, call

270–343–2739. Drag strip at old arpt, approximately 1 mile NE, Do Not mistake for rwy. ACTIVATE MIRL Rwy 17–35—CTAF.

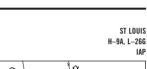
WEATHER DATA SOURCES: AWOS-3 119.6 (270) 343-5556.

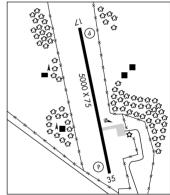
COMMUNICATIONS: CTAF/UNICOM 123.0

INDIANAPOLIS CENTER APP/DEP CON 124.625

RADIO AIDS TO NAVIGATION: NOTAM FILE BNA.

**LIVINGSTON (L) VORTAC** 108.4 LVT Chan 21 N36°35.07′ W85°10.00′ 009° 25.7 NM to fld. 1020/02W.





ST LOUIS

JULIAN CARROLL (See JACKSON)

KENTUCKY DAM STATE PARK (See GILBERTSVILLE)

KYLE-OAKLEY FLD (See MURRAY)

**LAANG** N38°08.69′ W85°38.00′ NOTAM FILE SDF.

NDB (LOM) 414 LK 293° 5.2 NM to Louisville Intl-Standiford Fld.

LAKE BARKLEY STATE PARK (See CADIZ)

LAKE CUMBERLAND RGNL (See SOMERSET)

LEBANON-SPRINGFIELD (See SPRINGFIELD)

SE, 17 DEC 2009 to 11 FEB 2010

### **LEITCHFIFI D**

GRAYSON CO (M2Ø) 4 SE UTC-6(-5DT) N37°23.99′ W86°15.68′ 760 B **FUEL** 100LL TPA—1560 (800) NOTAM FILE LOU

RWY 02-20: H4000X60 (ASPH) S-12.5 MIRI

RWY 02: VASI(V2L)-GA 3.0°TCH 27', Trees.

RWY 20: VASI(V2L)-GA 3.0°TCH 26'. Tree.

AIRPORT REMARKS: Attended on call. Fuel avbl on call: 270-259-3081.

Rwy 02-20 2% downslope for Rwy 20. ACTIVATE MIRL Rwy 02-20,

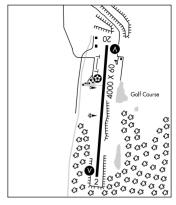
VASI Rwv 02 and Rwv 20 and rotating bcn-CTAF.

COMMUNICATIONS: CTAF/UNICOM 123.0

RADIO AIDS TO NAVIGATION: NOTAM FILE BWG.

BOWLING GREEN (H) VORTACW 117.9 BWG

126 N36°55.73′ W86°26.61′ 015° 29.5 NM to fld. 565/02E.



ST LOUIS

STIDIES

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1-161

### I FWISPORT

HANCOCK CO-RON LEWIS FLD (KY8) 3 NE UTC-5(-4DT) N37°57.19′ W86°51.43′

412 B FUEL 100LL NOTAM FILE KYB

RWY 05-23: H4000X75 (ASPH) S-16.5 MIRL

RWY 05: REIL. Trees.

RWY 23: REIL. Trees.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 05-23, REIL Rwy 05 and Rwy 23-CTAF.

COMMUNICATIONS: CTAF/UNICOM 123 O

EVANSVILLE APP/DEP CON 126.4

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35 N37°22.95′ W87°15.82′ 030° 39.3 NM to fld. 450/01W.

### **I FXINGTON**

BLUE GRASS (LEX) 4 W UTC-5(-4DT) N38°02.19' W84°36.35'

979 B S4 FUEL 100LL, JET A OX 1, 2, 3 LRA Class I, ARFF Index B NOTAM FILE LEX

RWY 04-22: H7003X150 (ASPH-GRVD) S-140, D-169, ST-175,

DT-275 HIRL CL 0.5% up NE

RWY 04: MALSR. TDZL. PAPI(P4L)-GA 3.0°TCH 60'. Tree.

RWY 22: REIL. PAPI(P4L)-GA 3.0°TCH 60'. Tree.

### RUNWAY DECLARED DISTANCE INFORMATION

RWY 04: TORA-7003 TODA-7003 ASDA-7003 LDA-6603

RWY 22: TORA-7003 TODA-7003 ASDA-7003 LDA-6603

AIRPORT REMARKS: Attended continuously. U.S. Customs user fee arpt. AER 22 has painted mural on retaining wall before rwy thId-gives illusion of elevated bridge structure can be distracting on apch.

Flight Notification Service (ADCUS) avbl.

WEATHER DATA SOURCES: ASOS (859) 281-5700. LLWAS.

COMMUNICATIONS: ATIS 126.3 UNICOM 122.95

R LEXINGTON APP/DEP CON 120.75 (221°-039°) 120.15 133.4 (040°-220°)

LEXINGTON TOWER 119.1 **GND CON 121.9 CLNC DEL** 132.35

AIRSPACE: CLASS C svc continuous ctc APP CON

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

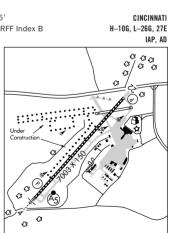
LEXINGTON (L) VORTAC 112.6 HYK Chan 73 N37°57.98' W84°28 35' 304° 7.6 NM to fld. 1039/00E.

BLAYD NDB (MHW/LOM) 242 LE N37°59.22′ W84°39.63′ 045° 3.9 NM to fld.

BRIDL NDB (LOM) 340 GN N38°07.47′ W84°30.42′ 226° 7.1 NM to fld.

ILS 110.1 I-LEX Rwy 04, Class IE. LOM BLAYD NDB, GS unusable 0.3 NM to thid.

ILS 111.75 I-GNJ Rwy 22. Class IA. LOM BRIDL NDB. LOC unusable byd 20° left and right of course.



LEXINGTON N37°57.98′ W84°28.35′ NOTAM FILE LEX.

(L) VORTAC 112.6 HYK Chan 73 304° 7.6 NM to Blue Grass. 1039/00E. RCO 122.1R 112.6T (LOUISVILLE RADIO)

CINCINNATI H-10G, L-26G, 27E

ST LOUIS

CINCINNATI

H-9A, L-26G

ΙΔΡ

L-26G

LIBERTY-CASEY CO (I53) 7 W UTC-5(-4DT) N37°18.51′ W85°03.55′

1040 NOTAM FILE LOU

RWY 01-19: H3000X60 (ASPH)

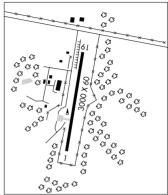
RWY 01: Trees. RWY 19: Road.

AIRPORT REMARKS: Unattended, VFR ops daigt only, Trees and elevations of land to left and right of apch to Rwy 19 penetrate transitional surface. Rwy 01 lgtd and marked radio twr 310' vicinity of rwy.

**COMMUNICATIONS: CTAF 122.9** 

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEW HOPE (L) VOR/DME 110.8 EWO Chan 45 N37°37.91' W85°40.55' 122° 35.3 NM to fld. 960/01E.



LONDON-CORBIN ARPT-MAGEE FLD (LOZ) 3 S UTC-5(-4DT) N37°05.21′ W84°04.64′ 1212 B S4 FUEL 100LL, JET A1+ OX 1, 3 NOTAM FILE LOZ

**RWY 06–24**: H5750X150 (ASPH) S–71, D–95, ST–120, DT–151 MIRL 0.5% up SW

RWY 06: REIL. PAPI(P4L)—GA 3.0°TCH 48'. Thid dsplcd 100'. Tree. RWY 24: REIL. PAPI(P4L)—GA 4.0°TCH 73'. Thid dspicd 550'. Tower.

AIRPORT REMARKS: Attended dawn-dusk. Small flocks of migrating birds on and invof arpt. PAEW Rwy 06-24 750' north. ACTIVATE MIRL Rwy 06-24 and REIL Rwy 06 and 24-CTAF.

WEATHER DATA SOURCES: ASOS 119.075 (606) 877-1699.

HIWAS 116.1 LOZ.

COMMUNICATIONS: CTAF 123.0 UNICOM 123.0

RCO 122.65 122.2 122.1R 116.1T (LOUISVILLE RADIO)

(R) INDIANAPOLIS CENTER APP/DEP CON 124.625

RADIO AIDS TO NAVIGATION: NOTAM FILE LOZ.

(L) VORTAC 116.1 LOZ Chan 108 N37°01.99' W84°06.60' 029° 3.6 NM to fld. 1245/03W. HIWAS.

VOR portion unusable 012°-060° byd 7 NM blo 10,500'.

ILS/DME 110.9 I-LOZ Chan 46 Rwv 06.

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LOUISVILLE N38°06.21′ W85°34.65′ NOTAM FILE LOU.

(H) VORTAC 114.8 IIU Chan 95 330° 8.5 NM to Bowman Fld. 720/01E. VOR portion unusable 285°-093° blo 10,000'.

RCO 122.45 122.2 122.1R (LOUISVILLE RADIO)

ST LOUIS H-5E, 10F, L-26F, 27E

### LOUISVILLE

BOWMAN FLD (LOU) 5 SE UTC-5(-4DT) N38°13.68′ W85°39.82′ 546 B S4 FUEL 100LL, JET A OX 1, 2, 3, 4 LRA NOTAM FILE LOU RWY 06-24: H4326X75 (ASPH) S-30 MIRL 0.3% up SW.

ST LOUIS L-27E IAP, AD

RWY 06: PAPI(P2L)—GA 4.0° TCH 48'. Thid dspicd 813'. Trees. RWY 24: REIL. PAPI(P2L)—GA 3.8° TCH 42'. Thid dspicd 307'.

RWY 15-33: H3579X75 (ASPH) S-30 MIRL 0.6% up NW. RWY 15: VASI(V4L)—GA 3.0°TCH 31'. Third dsplcd 206'. Tree. RWY 33: REIL. VASI(V4L)—GA 3.0°TCH 42'. Third dsplcd 341'. Trees.

### RUNWAY DECLARED DISTANCE INFORMATION

RWY 06: TORA-4047 TODA-4357 ASDA-4316 LDA-3469 RWY 15: TORA-3238 TODA-3579 ASDA-3579 LDA-3373 RWY 24: TORA-3509 TODA-4357 ASDA-4165 LDA-3856 RWY 33: TORA-3373 TODA-3579 ASDA-3466 LDA-3125

AIRPORT REMARKS: Attended 1100–0300Z‡. Be alert for birds on and invof arpt during dalgt hrs. Stage 3 compliance required for turbojet acft. PPR for all acft over 30,000 lbs GWT. Call arpt manager 502–368–6524 for PPR. When twr clsd training opr prohibited. ACTIVATE MIRL Rwy 06–24 and Rwy 15–33—CTAF. Flight Notification Service (ADCUS) avbl. NOTE: See Special Notices—Terminal Area Graphic Notice.

WEATHER DATA SOURCES: ASOS (502) 473-0693.

COMMUNICATIONS: CTAF 119.5 ATIS 112.2 UNICOM 122.95 Louisville RCO 122.45 122.2 122.1R (Louisville Radio)

**(R)** LOUISVILLE APP/DEP CON 132.075(E) 123.675(W)

TOWER 119.5 (1200-0300Z‡) GND CON 121.8 CLNC DEL 118.9

AIRSPACE: CLASS D svc 1200-0300Z‡ other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

(T) VOR/DME 112.2 BQM Chan 59 N38°13.81′ W85°39.89′ at fld. 540/01W. VOR portion unusable 073°-063° blo 4000′.

LAANG NDB (LOM) 414 LK N38°08.70′ W85°38.00′ 347° 5.2 NM fld. NOTAM FILE SDF.

COMM/NAV/WEATHER REMARKS: Ctc Louisville Radio for airport advisory service on 119.5 when twr is clsd.

LOUISVILLE INTL-STANDIFORD FLD (SDF) 4 S UTC-5(-4DT) N38°10.45′ W85°44.19′ 501 B S4 FUEL 100LL, JET A OX 4 LRA Class I, ARFF Index C NOTAM FILE SDF

501 B S4 FUEL 100LL, JET A 0X 4 LRA Class I, ARFF Index C NOTAM FILE SDF H-5E, 10F, L-27E RWY 17R-35L: H11890X150 (CONC-GRVD) S-75, D-207, DT-360, DDT-850 IAP, AD

PCN 70 R/C/W/T HIRL CL

RWY 17R: MALSR. TDZL. PAPI(P4L)—GA 3.0° TCH 75'.

Thid dsplcd 850'.

RWY 35L: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 75'. Thid dspicd 1040'.

RWY 17L-35R: H8579X150 (CONC-GRVD) S-75, D-207, DT-360,

DDT-850 PCN 70 R/C/W/T HIRL CL

RWY 17L: MALSR. TDZL PAPI(P4L)-GA 3.0° TCH 75'.

Thid dsplcd 329'. 0.3% down.

RWY 35R: ALSF2. TDZL PAPI(P4R)-GA 3.0° TCH 75'.

Thid dsplcd 450'. 0.3% up.

**RWY 11–29**: H7250X150 (CONC–WC) S–75, D–170, DT–360, DDT–850 PCN 59 R/C/W/T HIRL

RWY 11: Bldg. RWY 29: MALSR.

RUNWAY DECLARED DISTANCE INFORMATION

**RWY 17L**: TORA-8579 TODA-8579 ASDA-8129 LDA-7800

RWY 17R: TORA-11095 TODA-11095 ASDA-11095 LDA-10000 RWY 35L: TORA-11290 TODA-11290 ASDA-11290 LDA-10000

RWY 35R: TORA-8579 TODA-8579 ASDA-8250 LDA-7800

AIRPORT REMARKS: Attended continuously. Continuous construction on arpt, be alert for frequent rwy and twy closures. Birds on and invof arpt. ASDE–X Surveillance System in use: Pilots should opr transponders with Mode C on all twys and rwys. Taxi in position and hold waiver in effect from 0830Z‡ until SR at the intersection of Rwy 17R at Twy B and at the intersection of Rwy 35L at Twy B. These rwys will be used for departures only when exercising the provisions of this waiver. Std dep point on Rwy 17R is at Twy B. Pilots must req use of Rwy 17R extension. Declared distance for tkf at Twy B ASDA/TORA/TODA 10,245′. Std dep point on Rwy 35L is at Twy B. Pilots must req use of Rwy 35L extension. Declared distance for tkf at Twy B ASDA/TORA/TODA 10,250′. Rwy 17L RVR avbl touchdown, midpoint and rollout. Rwy 17R RVR avbl touchdown, midfield and rollout. Rwy 35L RVR avbl touchdown, midfield, rollout. Rwy 35R RVR avbl touchdown, midfield not rollout. Flight Notification Service (ADCUS) avbl.

WEATHER DATA SOURCES: ASOS (502) 367-1492. LLWAS.

COMMUNICATIONS: D-ATIS 118.725 UNICOM 122.95

R APP CON 134.15 132.075(E) 123.675(W)

R DEP CON 132.075(E) 123.675(W)

TOWER 124.2 GND CON 121.7 CLNC DEL 126.1

AIRSPACE: CLASS C svc continuous ctc APP CON

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

(H) VORTAC 114.8 IIU Chan 95 N38°06.21′ W85°34.65′ 298° 8.6 NM to fld. 720/01E.

LAANG NDB (LOM) 414 LK N38°08.69′ W85°38.00′ 293° 5.2 NM to fld. NOTAM FILE SDF.

ILS/DME 110.55 I-JJM Chan 42(Y) Rwy 35R. Class IIIE.

ILS 109.1 I-LKS Rwy 29. LOM LAANG NDB. LOC only. (LOC BC unusable).

ILS/DME 109.35 I-RLI Chan 30(Y) Rwy 35L. Class IIIE.

ILS/DME 111.95 I-PKI Chan 56(Y) Rwy 17L. Class IE.

ILS/DME 110.3 I-SNU Chan 40 Rwy 17R.

MADISON (See RICHMOND)

MADISONVILLE MUNI (210) 5 NE UTC-6(-5DT) N37°21.36′ W87°23.89′ 439 B FUEL 100, JET A+ OX 3 NOTAM FILE LOU

RWY 05-23: H6050X100 (ASPH) S-75, D-130 HIRL 0.5% up SW

RWY 05: REIL. PAPI(P4L)-GA 3.0°TCH 33'. Trees.

RWY 23: REIL. PAPI(P4L)-GA 3.0°TCH 45'.

AIRPORT REMARKS: Attended Mon-Fri 1300-2300Z‡, Sat-Sun; and holidays 1400-2300Z‡. PAPI Rwy 05 and Rwy 23 on continuous. HIRL Rwy 05-23 preset low ints, to increase ints and ACTIVATE REIL Rwy 05 and Rwy 23-CTAF.

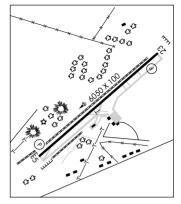
WEATHER DATA SOURCES: AWOS-3 126.475 (270) 821-4554.

COMMUNICATIONS: CTAF/UNICOM 122.7

R EVANSVILLE APP/DEP CON 126.4 (1200-0500Z‡) CLNC DEL 120.1

R INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z‡) RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35 N37°22.95' W87°15.82' 257° 6.6 NM to fld. 450/01W.



MARION-CRITTENDEN CO (5M9) 1 SW UTC-6(-5DT) N37°20.18′ W88°06.58′

ST LOUIS L-161 IAP

CINCINNATI

H-5E, L-16I

ΙΔΡ

650 B FUEL 100LL, JET A1+ NOTAM FILE LOU RWY 07-25: H4400X75 (ASPH) MIRL 0.5% up W

RWY 25: REIL. PAPI(P4L)-GA 3.0° TCH 33'.

RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 32'. Trees. AIRPORT REMARKS: Unattended. Ctc arpt manager for current rwy conditions 270-965-4242. ACTIVATE MIRL Rwy 07-25, REIL Rwy 07 and Rwy 25, PAPI Rwy 07 and Rwy 25-CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE PAH.

CUNNINGHAM (L) VORTACW 113.1 CNG Chan 78 N37°00.52′ W88°50.22′ 057° 40.0 NM to fld. 480/03E.

MAYFIELD GRAVES CO (M25) 3 NE UTC-6(-5DT) N36°46.18′ W88°35.08′

ST LOUIS H-6J, L-16I

IAP

523 B FUEL 100LL, JET A+ NOTAM FILE LOU RWY 18-36: H5001X100 (ASPH) S-30 MIRL

RWY 18: REIL. PAPI(P4L)-GA 3.0° TCH 32'.

RWY 36: REIL. PAPI(P4L)-GA 3.0° TCH 42'. Trees.

AIRPORT REMARKS: Attended 1400Z‡-dusk. ACTIVATE MIRL Rwy 18-36, REIL and PAPI Rwys 18 and 36-CTAF.

WEATHER DATA SOURCES: AWOS-3 120.625 (270) 247-2094.

COMMUNICATIONS: CTAF/UNICOM 122.8

(R) MEMPHIS CENTER APP/DEP CON 133.65

RADIO AIDS TO NAVIGATION: NOTAM FILE PAH.

CUNNINGHAM (L) VORTACW 113.1 CNG Chan 78 N37°00.52' W88°50.22' 137° 18.8 NM to fld. 480/03E.

NDB (MHW) 401 GGK N36°41.46′ W88°35.54′ 005° 4.6 NM to fld. NOTAM FILE LOU. Unmonitored.

RΙ a Ø Œ ß ଫଫଫ 00 0 0 ଫ∎ ^? ■ C 03 ----

McCREARY CO (See PINE KNOT)

LONDON (L) VORTAC 116.1 LOZ Chan 108 N37°01.99′ W84°06.60′ 148° 31 NM to fld. 1245/03W. HIWAS.

### MONTICELLO

**WAYNE CO** (EKQ) 2 N UTC-5(-4DT) N36°51.32′ W84°51.37′ 963 B S4 **FUEL** 100LL, JET A NOTAM FILE LOU

**RWY 03-21**: H4000X75 (ASPH) S-12.5 MIRL **RWY 03**: REIL. PAPI(P4L)—GA 3.0° TCH 40′. Trees.

RWY 21: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Tree.

AIRPORT REMARKS: Attended 1100-2300Z‡. REIL Rwy 03 OTS indef.

MIRL Rwy 03–21 preset low ints; to increase ints

ACTIVATE—CTAF. PAPI Rwy 03 and Rwy 21, REIL Rwy 21 ACTIVATE—CTAF.

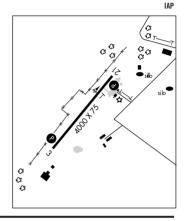
WEATHER DATA SOURCES: ASOS 118.825 (606)348-0862.

COMMUNICATIONS: CTAF/UNICOM 122.8

R INDIANAPOLIS CENTER APP/DEP CON 124.625

RADIO AIDS TO NAVIGATION: NOTAM FILE BNA.

**LIVINGSTON (L) VORTAC** 108.4 LVT Chan 21 N36°35.07′ W85°10.00′ 045° 22.1 NM to fld. 1020/02W.



MOREHEAD—ROWAN CO CLYDE A. THOMAS RGNL (M97) 7 NW UTC-5(-4DT)

CINCINNATI H-10g, L-26g

IAP

CINCINNATI

L-25A

N38°12.90′ W83°35.26′

1028 B NOTAM FILE LOU

Not insp.

RWY 02-20: H5500X100 (ASPH) S-30 MIRL

**RWY 02:** REIL. PAPI (P4L)—GA 3.0° TCH 30'. **RWY 20:** REIL. PAPI (P4L)—GA 3.0° TCH 33'.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 02-20 and PAPI Rwy 02 and Rwy 20-CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

INDIANAPOLIS CENTER APP/DEP CON 124.225

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEWCOME (L) VORTAC 110.4 ECB Chan 41 N38°09.50′ W82°54.60′ 278° 32.2 NM to fld. 1070/02W.

MOUNT STERLING-MONTGOMERY CO (IOB)

1019 B S4 FUEL 100LL, JET A NOTAM FILE LOU

S-20 MIRL 0.7% up SW RWY 03-21: H5002X75 (ASPH) RWY 03: REIL. PAPI(P4L)-GA 4.0°. Trees.

RWY 21: REIL. PAPI(P2L)-GA 3.0° TCH 30'. Tree.

AIRPORT REMARKS: Attended 1300-0000Z‡. For svc after hrs call 859-585-0844 or 859-498-6875. Self svc avbl 24 hrs.

ACTIVATE MIRL Rwy 03-21, REIL Rwys 03 and 21 and PAPI Rwy 03 and Rwy 21-CTAF. WEATHER DATA SOURCES: AWOS-3 120,675 (859) 498-7001.

COMMUNICATIONS: CTAF/UNICOM 122.8

R LEXINGTON APP/DEP CON 120.15

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

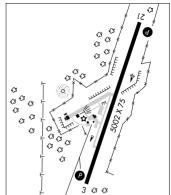
LEXINGTON (L) VORTAC 112.6 HYK Chan 73 N37°57.98' W84°28.35' 077° 24 NM to fld. 1039/00E.

NDB (MHW) 210 IOB N38°03.60′ W83°58.89′ at fld. NOTAM FILE LOU.

2 W UTC-5(-4DT) N38°03.49′ W83°58.78′

CINCINNATI

H-10G, L-26G, 27E ΙΔΡ



MIIHLENBERG CO (See GREENVILLE)

MUREY N36°43.24′ W88°17.40′ NOTAM FILE LOU.

NDB (LOM) 368 EU 231° 5.1 NM to Kyle-Oakey fld.

ST LOUIS

### MIIRRAY

KYLE-OAKLEY FLD (CEY) 4 NW UTC-6(-5DT) N36°39.88′ W88°22.37′

577 B S4 FUEL 100LL, JET A+, MOGAS OX 1 NOTAM FILE LOU

RWY 05-23: H6203X100 (ASPH-AFSC) S-30 MIRL

RWY 05: REIL. PAPI(P4L)-GA 3.0°TCH 27'. Trees.

RWY 23: REIL. PAPI(P4L)-GA 3.0°TCH 30'.

AIRPORT REMARKS: Attended Mon-Sat 1400-2300Z‡, Sun

1900-2300Z‡. For svc ngts call 270-978-0345. ACTIVATE MIRL Rwy 05-23; PAPI and REIL Rwys 05 and 23-CTAF dusk-dawn only.

WEATHER DATA SOURCES: AWOS-3 119.975 (270) 489-2424.

COMMUNICATIONS: CTAF/UNICOM 122.7

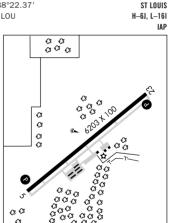
R MEMPHIS CENTER APP/DEP CON 133.65

RADIO AIDS TO NAVIGATION: NOTAM FILE PAH.

CUNNINGHAM (L) VORTACW 113.1 CNG Chan 78 N37°00.52' W88°50.22' 130° 30.4 NM to fld. 480/03E.

MUREY NDB (LOM) 368 EU N36°43.24′ W88°17.40′ 231° 5 2 NM to fld. NOTAM FILE LOU.

ILS 110.5 I-EUY Rwy 23. LOM MUREY NDB. LOC only.



MYSTIC N37°53.64′ W86°14.67′ NOTAM FILE LOU. (L) VOR 108.2 MYS 087° 13.0 NM to Godman AAF.

ST LOUIS

NEWCOMBE N38°09.50' W82°54.60' NOTAM FILE LOU.

(L) VORTAC 110.4 ECB Chan 41 299° 12.4 NM to Olive Hill-Sellers' Fld. 1070/02W.

RCO 122.1R 110.4T (LOUISVILLE RADIO)

CINCINNATI L-26H

NEW HOPE N37°37.91′ W85°40.55′ NOTAM FILE LOU.

(L) VOR/DME 110.8 EWO Chan 45 036° 13.8 NM to Samuels Fld. 960/01E. RCO 122.1R 110.8T (LOUISVILLE RADIO)

ST LOUIS L-16J. 26F

ST LOUIS

NOORA N36°52.80′ W86°28.90′ NOTAM FILE BWG

NDB (LDM) 236 BW 032° 5.9 NM to Bowling Green-Warren Co Rgnl. LOM unusable byd 10 NM.

SE, 17 DEC 2009 to 11 FEB 2010

H-5E. 10F, L-16J

OHIO CO (See HARTFORD)

**OLIVE HILL-SELLERS' FLD** (212) 3 SE UTC-5(-4DT) N38°15.22′ W83°08.58′

CINCINNATI

ST LOUIS

ß

1016 NOTAM FILE LOU

RWY 02-20: H2500X50 (ASPH)

RWY 02: Trees. RWY 20: Trees.

AIRPORT REMARKS: Unattended. Rwy 02–20 has widespread severe cracking with raveling and deterioration.

COMMUNICATIONS: CTAF 122.9

**OWENSBORO-DAVIESS CO** (OWB) 3 SW UTC-6(-5DT) N37°44.33′ W87°10.01′

407 B S4 FUEL 100LL, JET A OX 4 LRA Class I, ARFF Index B NOTAM FILE OWB

407 B S4 FUEL 100LL, JETA OX 4 LRA CIASS I, ARFF INDEX B NOTAM FILE (
RWY 18-36: H8000X150 (CONC) S-75. D-150. ST-175. DT-200 HIRL

NOTAM FILE OWB H–5E, L–16I
IAP. AD

81

36 T

RWY 18: REIL. VASI(V4L)-GA 3.0°TCH 52'.

RWY 36: MALSR. VASI(V4L)—GA 3.0°TCH 56'. Thid dsplcd 1500'.

P-IIIIe.

**RWY 05-23**: H5000X100 (ASPH-CONC) S-40, D-40,

DT-40 MIRL

RWY 05: REIL. PAPI(P2L)-GA 3.0° TCH 45'.

RWY 23: REIL. PAPI(P2L)-GA 3.0° TCH 45'.

RUNWAY DECLARED DISTANCE INFORMATION

 RWY 05:
 TORA-5000
 TODA-5000
 ASDA-5000
 LDA-5000

 RWY 18:
 TORA-7000
 TODA-7000
 ASDA-8000
 LDA-8000

 RWY 23:
 TORA-5000
 TODA-5000
 ASDA-5000
 LDA-5000

 RWY 36:
 TORA-8000
 ASDA-8000
 LDA-6500

AIRPORT REMARKS: Attended continuously. Large flocks of birds on and invof arpt. Coyotes on and invof all rwys and twys. PPR 24 hours for unscheduled air carrier ops with more than 30 passenger seats call airport manager 270–685–4179. When twr clsd ACTIVATE HIRL Rwy 18–36, MIRL Rwy 05–23, MALSR Rwy 36, REIL Rwy 05, REIL Rwy 23, REIL Rwy 18, PAPI Rwy 05 and Rwy 23, VASI Rwy 36, twy and windcone Igts—CTAF.

 $\textbf{WEATHER DATA SOURCES:} \ ASOS \ 124.325 \ (270) \ 683-3228.$ 

COMMUNICATIONS: CTAF 120.7 UNICOM 122.95

RCO 122.1R 108.6T (LOUISVILLE RADIO)

- R EVANSVILLE APP/DEP CON 126.4 (1200-0500Z‡)
- R INDIANAPOLIS CENTER APP/DEP CON 128.3 (0500-1200Z‡)

TOWER 120.7 (1200-0400Z‡) GND CON 121.7

AIRSPACE: CLASS D svc 1200-0400Z‡ other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE OWB.

(T) VOR/DME 108.6 OWB Chan 23 N37°44.61' W87°09.96' at fld. 401/01E.

HIGUY NDB (LOM) 341 OW N37°38.14′ W87°09.73′ 359° 6.2 NM to fld.

IL\$ 111.5 I-OWB Rwy 36. Class IE. LOM HIGUY NDB.

PADUCAH N37°03.65′ W88°46.43′

RCO 122.5 122.2 (LOUISVILLE RADIO) at Barkley Rgnl.

ST LOUIS

L-16H

### **PADUCAH**

**BARKLEY RGNL** (PAH) 12 W UTC-6(-5DT) N37°03.62′ W88°46.38′

410 B S4 **FUEL** 100LL, JET A Class I, ARFF Index A NOTAM FILE PAH **RWY 04–22**: H6499X150 (ASPH–GRVD) S–76, D–99, ST–118, DT–170 HIRL

ST LOUIS H-6J, L-16H IAP, AD

CINCINNATI

ΙΔΡ

L-26H

H-10G, 12G, L-26H

RWY 04: MALSR. Pole.

RWY 22: REIL. VASI(V4L)-GA 3.0° TCH 59'. Trees.

RWY 14–32: H5500X150 (ASPH–GRVD) S–75, D–100, DT–170

RWY 14: Thid dsplcd 100' Tree.

RWY 32: REIL, PAPI(P4L), Trees.

### RUNWAY DECLARED DISTANCE INFORMATION

 RWY 04:
 TORA-6499
 TODA-6499
 ASDA-6499
 LDA-6499

 RWY 11:
 TORA-5500
 TODA-5500
 ASDA-5500
 LDA-5400

 RWY 22:
 TORA-6499
 TODA-6499
 ASDA-6499
 LDA-6499

RWY 32: TORA-5500 TODA-5500 ASDA-5400 LDA-5400 AIRPORT REMARKS: Attended 1130-0500Z‡. CLOSED to unscheduled air carrier opr with more than 30 passenger seats except 24

hours PPR—call arpt manager 270–744–0521. National Weather Service on arpt call 270–744–6440. Rwy 04–22 surface condition not monitored 0400–10002‡. When twr clsd ACTIVATE HIRL Rwy 04–22, MIRL Rwy 14–32, MALSR Rwy 04, PAPI Rwy 32, REIL Rwy 22 and Rwy 32, Twy Igts and Igtd windcone—CTAF.

WEATHER DATA SOURCES: ASOS 118.375 (270) 744-6719.

COMMUNICATIONS: CTAF 119.6 UNICOM 123.0

PADUCAH RCO 122.5 122.2 (LOUISVILLE RADIO)

R MEMPHIS CENTER APP/DEP CON 133.65

PADUCAH TOWER 119.6 (1200-0500Z‡) GND CON 121.7

AIRSPACE: CLASS D svc 1200-0500Z‡ other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE PAH.

CUNNINGHAM (L) VORTACW 113.1 CNG Chan 78 N37°00.52′ W88°50.21′ 042° 4.4 NM to fld. 480/03E.

BELLGRADE NDB (MHW) 254 BDD N37°08.73′ W88°40.23′ 224° 7.1 NM to fld.

IL\$ 108.5 I-PAH Rwy 04.

COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

### PIKE CO-HATCHER FLD (See PIKEVILLE)

### **PIKFVIIIF**

PIKE CO-HATCHER FLD (PBX) 6 NW UTC-5(-4DT) N37°33.71′ W82°33.98′

1473 B S4 FUEL 100LL, JET A+ NOTAM FILE LOU

RWY 09-27: H5350X100 (ASPH) S-30 MIRL 0.3% up E

RWY 09: REIL. PAPI(P4L)—GA 3.0° TCH 33'. Thid dsplcd 350'. Trees.

RWY 27: REIL. PAPI(P4L)—GA 3.0° TCH 47'. Thid dspicd 350'. Fence.

RWY 02-20: H3600X75 (ASPH) S-12 MIRL 0.4% up S

RWY 02: REIL. VASI(V2L)—GA 3.0°TCH 26'. RWY 20: REIL. VASI(V2L)—GA 3.0°TCH 29'. Trees.

### RUNWAY DECLARED DISTANCE INFORMATION

**RWY 09:** TORA-5350 TODA-5350 ASDA-5000 LDA-4650 **RWY 27:** TORA-5350 TODA-5350 ASDA-5000 LDA-4650

AIRPORT REMARKS: Attended Mon-Fri 1300-0100Z‡, Sat-Sun 1400-0000Z‡. For after hrs svc call 606-437-9548. Rwy 2-20 CLOSED indef. REIL and VASI Rwy 20 OTS indef. Rwy 02-20 MIRL OTS indef. Rwy 02-20 markings faded and obscured. ACTIVATE MIRL Rwys 02-20 and 09-27; REIL Rwys 02; 20; 09 and 27; VASI Rwys 02 and 20; PAPI Rwys 09 and 27—CTAF.

WEATHER DATA SOURCES: AWOS-3 121.225 (606) 437-6701.

COMMUNICATIONS: CTAF/UNICOM 122.8

R INDIANAPOLIS CENTER APP/DEP CON 126.575

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

HAZARD (L) VOR/DME 111.2 AZQ Chan 49 N37°23.48′ W83°15.78′ 077° 34.8 NM to fld. 1247/04W.

ILS/DME 109.7 I–PBX Chan 34 Rwy 27.

PIKEVILLE N37°38.27′ W82°34.42′ RCO 122.05 (LOUISVILLE RADIO)

CINCINNATI

,

0.5% up SW

### PINE KNOT

MCCREARY CO (18I) 3 NW UTC-5(-4DT) N36°41.72′ W84°23.49′

1370 B FUEL 100LL NOTAM FILE LOU

**RWY 04-22**: H3000X75 (ASPH) S-8 MIRL

RWY 04: REIL. Trees. Rwy 22: REIL.

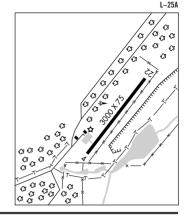
AIRPORT REMARKS: Unattended. 24 hr credit card svc avbl for fuel.

ACTIVATE MIRL Rwy 04–22 and REIL Rwy 04 and Rwy 22—CTAF.

COMMUNICATIONS: CTAF/UNICOM 123.05

RADIO AIDS TO NAVIGATION: NOTAM FILE LOZ.

LONDON (L) VORTAC 116.1 LOZ Chan 108 N37°01.99′ W84°06.60′ 217° 24.4 NM to fld. 1245/03W. HIWAS.



### **PRESTONSBURG**

**BIG SANDY RGNL** (K22) 9NE UTC-5(-4DT) N37°45.06′ W82°38.20′

CINCINNATI

1221 B **FUEL** 100LL, JET A1+ NOTAM FILE LOU

H-10G, 12G, L-26H

CINCINNATI

RWY 03-21: H5000X100 (ASPH) S-30 MIRL 1.0% up NE

RWY 03: REIL. PAPI(P4L)—GA 4.0° TCH 28'. Pole. RWY 21: REIL. PAPI(P4L)—GA 3.0° TCH 28'.

AIRPORT REMARKS: Attended 1300Z‡-Dusk. Deer and birds on and invof arpt. ACTIVATE MIRL Rwy 03-21 and REIL Rwy 03 and Rwy 21—CTAF.

WEATHER DATA SOURCES: AWOS-3 120.175 (606) 298-4143.

COMMUNICATIONS: CTAF/UNICOM 123.05

R HUNTINGTON APP/DEP 119.75

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEWCOMBE (L) VORTAC 110.4 ECB Chan 41 N38°09.50′ W82°54.60′ 154° 27.7 NM to fld. 1070/02W.

PRINCETON-CALDWELL CO (2MØ) 2 NE UTC-6(-5DT) N37°06.91′ W87°51.42′

ST LOUIS L-161

584 B **FUEL** 100LL NOTAM FILE LOU **RWY 05-23**: H4099X75 (ASPH) S-12 MIRL

RWY 05: Berm RWY 23: Trees

AIRPORT REMARKS: Unattended. Fuel 24 hr credit card svc avbl. ACTIVATE MIRL Rwy 05-23—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35 N37°22.95′ W87°15.82′ 242° 32.6 NM to fld. 450/01W.

**PROVIDENCE-WEBSTER CO** (8M9) 2 NE UTC-6(-5DT) N37°25.49′ W87°44.17′

ST LOUIS

393 B NOTAM FILE LOU

RWY 16-34: H3800X70 (ASPH) S-7.5 MIRL

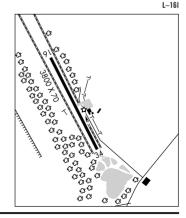
RWY 16: Trees. RWY 34: Trees.

**AIRPORT REMARKS:** Unattended. Ultralight activity on and invof arpt. ACTIVATE MIRL Rwy 16–34—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

CENTRAL CITY (L) VORTAC 109.8 CCT Chan 35 N37°22.95′ W87°15.82′ 278° 22.7 NM to fld. 450/01W.



### RICHMOND

MADISON (139) 8 SW UTC-5(-4DT) N37°37.85′ W84°19.94′ 1002 B FUEL 100LL, JET A1+ NOTAM FILE LOU RWY 18-36: H4500X100 (ASPH) S-12.5 MIRL 0.7% up S

RWY 18: REIL. PAPI(P4L)—GA 3.0° TCH 22'. Thid dsplcd 90'.

RWY 36: REIL. PAPI(P4L)-GA 3.0° TCH 24'. Trees.

AIRPORT REMARKS: Attended Mon-Sat 1300-2200Z‡, Sun

1700-2200Z‡. Rwy 18-36 cracking with water/sediment weeping on both sides of rwy sfc. ACTIVATE MIRL. PAPI and REIL Rwy 18-36-CTAF.

WEATHER DATA SOURCES: AWOS-3 119.625 (859) 985-5969. COMMUNICATIONS: CTAF/UNICOM 122.8

MADISON RCO 122.3 (LOUISVILLE RADIO)

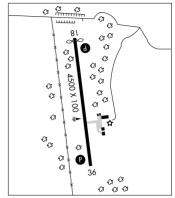
R LEXINGTON APP/DEP CON 120.15

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

LEXINGTON (L) VORTAC 112.6 HYK Chan 73 N37°57.98' W84°28.35' 162° 21.2 NM to fld. 1039/00E.

CINCINNATI L-26G IAP

ST LOUIS



ROUGH RIVER STATE PARK (See FALLS-OF-ROUGH)

RUSSELL CO (See JAMESTOWN)

RUSSELLVILLE-LOGAN CO (4M7) 4 SE UTC-6(-5DT) N36°48.00′ W86°48.61′

689 B S2 FUEL 100LL, JET A NOTAM FILE LOU

RWY 06-24: H3999X75(ASPH) S-12.5 MIRL 0.9% up SW

RWY 06: REIL, VASI(V2L)-GA 3.0° TCH 25', Trees.

RWY 24: REIL. VASI(V2L)-GA 3.0° TCH 25'. Trees.

AIRPORT REMARKS: Attended dalgt hours. VASIs opr dusk-dawn. Rwy 06 and 24 REIL OTS indef. ACTIVATE VASI Rwvs 06 and 24-CTAF. Dusk-dawn ACTIVATE MIRL Rwv 06-24-CTAF.

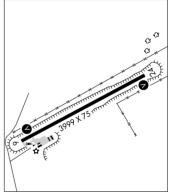
COMMUNICATIONS: CTAF/UNICOM 122.7

(R) MEMPHIS CENTER APP/DEP CON 133 85

RADIO AIDS TO NAVIGATIONS: NOTAM FILE BWG.

BOWLING GREEN (H) VORTACW 117.9 BWG Chan 126 N36°55.73′ W86°26.61′ 245° 19.3 NM to fld. 565/02E.

L-161 IAP



SAMUELS FLD (See BARDSTOWN)

SCREAMING EAGLE N36°40.59′ W87°29.51′ NOTAM FILE LOU. (L) TACAN Chan 96 HXW (114.9) at Campbell AAF. 572/1W.

ST LOUIS 1-161

TACAN unusable:

045°-065° bvd 21 NM

066°-044°

3

### SOMERSET

LAKE CUMBERLAND RGNL (SME) 3 S UTC-5(-4DT) N37°03.22′ W84°36.94′

927 B FUEL 100LL, JET A Class II, ARFF Index A NOTAM FILE SME RWY 05-23: H5800X100 (ASPH) S-40, D-70, DT-125 MIRI

CINCINNATI H-9A. L-26G 

RWY 05: REIL. PAPI(P4R)-GA 3.0° TCH 44'. Thid dspicd 513'. Ground

RWY 23: REIL. PAPI(P4L)-GA 4.0° TCH 41'. Thid dsplcd 300'.

### RUNWAY DECLARED DISTANCE INFORMATION

RWY 05: TORA-5800 TODA-5800 ASDA-5800 LDA-5287 TORA-5800 TODA-5800 ASDA-5800 LDA-5500

AIRPORT REMARKS: Attended 1200Z‡-dusk, Index A ARFF equip avbl only during scheduled air carrier ops. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except 24 hr PPR call arpt manager 606-678-4554.

WEATHER DATA SOURCES: AWOS-3 120,050 (606) 679-5710.

COMMUNICATIONS: CTAF/UNICOM 122.8

SOMERSET RCO 122.55 (LOUISVILLE RADIO)

R INDIANAPOLIS CENTER APP/DEP CON 124.625

RADIO AIDS TO NAVIGATION: NOTAM FILE LOZ.

LONDON (L) VORTAC 116.1 LOZ Chan 108 N37°01.99' 276° 24.3 NM to fld. 1245/03W. HIWAS. W84°06 60'

CUMBERLAND RIVER NDB (MHW) 388 CDX N36°59.77'

W84°40.88' 048° 4.7 NM to fld. NOTAM FILE LOU. NDB unmonitored.

II S/NMF 109 3 Chan 30 Rwy 05. GS unusable byd 3° left of centerline and byd 8° right of I-SME centerline all distances and altitudes. Autopilot coupled opch blo 1,620 ft not authorized.

SPRINGFIELD N37°38.08′ W85°14.19′ NOTAM FILE LOU. NDB (MHW) 429 IKY at Lebanon-Springfield.

ST LOUIS L-26F

### **SPRINGFIELD**

LEBANON-SPRINGFIELD (612) 3 S UTC-5(-4DT) N37°38.01′ W85°14.51′

866 B FUEL 100LL, JET A NOTAM FILE LOU RWY 11-29: H5000X75 (ASPH) S-10 MIRL 0.8% up E

RWY 11: REIL. PAPI(P4L)-GA 3.0° TCH 35'. Thid dsplcd 125'. Trees

RWY 29: REIL. PAPI(P4L)—GA 3.3° TCH 27'. Thid dspicd 200'. Trees

AIRPORT REMARKS: Attended Mon-Sat 1400-2200Z‡, Sun

1800-2200Z‡. Ultralight activity invof arpt. ACTIVATE MIRL Rwy 11-29, REIL Rwy 11 and Rwy 29 and PAPI Rwy 11 and Rwy 29-CTAF.

WEATHER DATA SOURCES: AWOS-3 119.725 (866) 754-5623. COMMUNICATIONS: CTAF/UNICOM 122.8

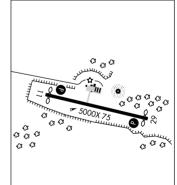
R INDIANAPOLIS CENTER APP/DEP CON 124.625

RADIO AIDS TO NAVIGATION: NOTAM FILE LOU.

NEW HOPE (L) VOR/DME 110.8 EWO Chan 45 N37°37.91' W85°40.55' 089° 20.7 NM to fld. 960/01E.

SPRINGFIELD NDB (MHW) 429 IKY N37°38.08′ W85°14.19′

ST LOUIS H-5E, 10F, L-26F IAP



**STANTON** (I5Ø) 1 E UTC-5(-4DT) N37°51.00′ W83°50.75′

651 FUEL 100LL NOTAM FILE LOU

RWY 06-24: H3000X70 (ASPH) S-8 MIRL

RWY 06: REIL. Thid dsplcd 220'. Trees.

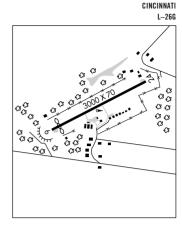
RWY 24: REIL. Road.

AIRPORT REMARKS: Attended continuously. Glider and ultralight activity on weekends. ACTIVATE MIRL Rwy 06–24 and REIL Rwy 06 and Rwy 24—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE LEX.

**LEXINGTON (L) VORTAC** 112.6 HYK Chan 73 N37°57.98′ W84°28.35′ 103° 30.6 NM to fld. 1039/00E.



### STUART POWELL FLD (See DANVILLE)

**STURGIS MUNI** (TWT) 2 E UTC-6(-5DT) N37°32.51′ W87°57.26′

372 B **FUEL** 100LL, JET A1+ NOTAM FILE LOU **RWY 18-36**: H5000X150 (ASPH) S-30, D-50 MIRL

RWY 18: REIL. PAPI(P2L)—GA 3.5° TCH 30'.

RWY 36: REIL. PAPI(P2L)—GA 3.0° TCH 44'. Trees.

AIRPORT REMARKS: Attended 1300-2300Z‡. For fuel after 2200Z‡ call 270-836-6036. ACTIVATE MIRL Rwy 18-36, PAPI Rwy 18 and Rwy 36 and REIL Rwy 18 and Rwy 36—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.775 (270) 333-2967.

COMMUNICATIONS: CTAF/UNICOM 122.8

EVANSVILLE APP/DEP CON 126.4 (1200-0500Z‡)

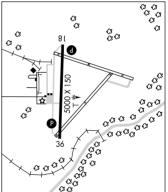
MEMPHIS CENTER APP/DEP CON 133.65 (0500-1200Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE HUF.

POCKET CITY (H) VORTACW 113.3 PXV Chan 80 N37°55.70′ W87°45.74′ 199° 24.9 NM to fid. 384/O3E. HIWAS.

TRADEWATER NDB (MHW) 276 TWT N37°28.00′ W87°56.82′ 356° 4.5 NM to fid. NOTAM FILE LOU. (Unmonitored 0000–1200Z‡).





TAYLOR CO (See CAMPBELLSVILLE)

TOMPKINSVILLE-MONROE CO (TZV) 2 NE UTC-6(-5DT) N36°43.74′ W85°39.14′

1036 S2 B FUEL 100LL NOTAM FILE LOU

RWY 04-22: H4000X75(ASPH) S-12 MIRL

RWY 04: REIL. VASI(V2L)-GA 3.0°TCH 35'. Pole.

RWY 22: REIL. VASI(V2L)-GA 3.0°TCH 42'. Tree.

AIRPORT REMARKS: Unattended. Rwy 04 and 22 REIL OTS indef.

ACTIVATE MIRL Rwy 04-22; REIL and VASI Rwy 04 and Rwv 22-CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

MEMPHIS CENTER APP/DEP CON 132 1

RADIO AIDS TO NAVIGATION: NOTAM FILE BNA.

LIVINGSTON (L) VORTAC 108.4 LVT Chan 21 N36°35.07' W85°10.00' 292° 25 NM to fld. 1020/02W.

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Cr Cr

TRADEWATER (See DAWSON SPRINGS)

TRADEWATER N37°28.00′ W87°56.82′ NOTAM FILE LOLL

NDB (MHW) 276 TWT 357° 4.5 NM to Sturgis Muni. (Unmonitored 0000-1200Z‡) ST LOUIS 1-161

O C

a aa

STIIOLITS

L-25A

IAP

TUCKER-GUTHRIE MEML (See HARLAN)

WAYNE CO (See MONTICELLO)

WENDELL H FORD (See HAZARD)

**WEST LIBERTY** (913) 1 S UTC-5(-4DT) N37°54.87′ W83°15.13′

CINCINNATI

934 NOTAM FILE LOU

RWY 07-25: H2400X60 (ASPH)

RWY 25: Trees.

AIRPORT REMARKS: Unattended. Call 606-434-4065 for arpt conditions. CAUTION—tkf/ldg-turbulence from surrounding wooded hills, no wind indicator.

**COMMUNICATIONS: CTAF 122.9** 

WILLIAMSBURG-WHITLEY CO (W38) 4 NNW UTC-5(-4DT) N36°47.70′ W84°11.97′

CINCINNATI H-9A. L-25B

1178 B FUEL 100LL, JET A NOTAM FILE LOU

RWY 02-20: H5500X100(ASPH) S-30, D-45 0.4% up N MIRL

IAP

RWY 02: REIL. PAPI(P4L)—GA 3.17° TCH 35'. Trees.

RWY 20: REIL. PAPI(P4L)-GA 3.17° TCH 30'. Trees.

AIRPORT REMARKS: Attended Mon-Fri 1400-2200Z‡. ACTIVATE MIRL Rwy 02-20, REIL Rwy 02 and Rwy 20—CTAF. WEATHER DATA SOURCES: AWOS-3 119.575 (606) 549-1585.

COMMUNICATIONS: CTAF/UNICOM 122.7

R INDIANAPOLIS CENTER APP/DEP 124.625

RADIO AIDS TO NAVIGATION: NOTAM FILE LOZ.

LONDON (L) VORTAC 116.1 LOZ Chan 108 N37°01.99' W84°06.60' 200° 14.9 NM to fld. 1245/03W. HIWAS.

YORK N38°38.65′ W82°58.70′ NOTAM FILE LOU. CINCINNATI L-26H

(L) VORTAC 112.8 YRK Chan 75 118° 12.7 NM to Ashland Rgnl. 1040/05W.

RCO 122.1R 112.8T (LOUISVILLE RADIO)

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# NOISE ABATEMENT PROCEDURES COVINGTON, KY, CINCINNATI/NORTHERN KENTUCKY INTL AIRPORT (CVG)

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no further than 2 miles from the departure end of parallel runways, due to noise abatement restrictions.

### AEROBATIC PRACTICE AREA Jack Edwards Airport (JKA) Gulf Shores. AL

Aerobatic flight activity will be conducted within a 2 NM radius of airport. Contact UNICOM for traffic and Anniston AFSS for specific times.

### Fayette County (FYE), Somerville, Tennessee

Aerobatic training and practice is conducted in a 3500' symmetrical box located 500 feet west of Rwy 01–19 from the sfc to 4500 MSL. If surface winds favor Rwy 01, right traffic for that rwy is in effect when area is active.

Pilots should use caution within this area. For further information contact Jackson AFSS on 1-901-423-1289.

# CONTROLLED FIRING AREA Milan, Tennessee

Controlled Firing Area 5 NM radius 2500' & blo of MKL 030/018, eff. Mon-Fri 1200-2300Z‡, Sat 1530-2230Z‡ Sun 1230-1700Z‡.

# Helicopter Activity Mosby Army Heliport, Dahlonega, GA Area

Occasional military helicopter activity within 15NM radius of Mosby AHP, (34°37'N/84°06'W) SFC to 3700 MSL. Activity includes: flight formations, personnel transport operations, cargo para—drop operations (below 500 AGL), medical evacuation and night vision device training. CTAF 227.2, 139.3, "Mountain Ranger 08" FM 34.10. Staff Duty Officer, Camp Frank D. Merrill, (706) 864–3367.

## NIGHT VISION LIGHTS OUT OPERATIONS North Carolina. South Carolina

Military helicopter activity will be conducted for Night Vision Lights Out Training in North Carolina and South Carolina. Position lights will be extinguished or greatly reduced in intensity. The training is conducted in areas of low air traffic and not within four (4) miles of a public use airport. Training is IAW exemption to Far Part 91.

Boundaries: Beginning at Lat  $35^{\circ}41'N$ , Lon  $78^{\circ}30'W$ ; to Lat  $34^{\circ}00'N$ , Lon  $78^{\circ}30'W$ ; to Lat  $34^{\circ}00'N$ , Lon  $80^{\circ}00'N$ , Lon  $80^{\circ}00'N$ , Lon  $80^{\circ}30'W$ ; to point of beginning.

Times of use: Sunset to sunrise, daily.

# Helicopter Activity Camp Blanding, Starke, Florida Area

Heavy military helicopter activity within 9 NM radius Blanding AAF, (29°57′7.84″N; 81°58′47.32″W). Surface to 1,500 feet. Activity includes: flight formations, personnel transport operations, sling loads, MED VAC, and night vision goggle training. Mon–Sat 1300–0500Z‡, 1300–2000Z‡ Sun. Blanding Twr 123.0 by NOTAM, other times Range Control 123.0. (904) 533–3113/3352.

# Cuban Flight Advisory (UNTIL FURTHER NOTICE)

The Federal Aviation Administration has been informed that an official Cuban government publication has issued a warning that Cuban Armed Forces will shoot down any aircraft that penetrates Cuban Airspace illegally and refuses to obey an order to land for inspection.

All pilots should take note: use extreme caution in the area of Cuban Airspace; adhere strictly to Cuban requirements for overflight of their territory.

### LASER LIGHT DEMONSTRATIONS Lake Buena Vista, Florida

A laser light demonstration will be conducted at Disney MGM Studios Theme Park, Lake Buena Vista, Florida (ORL 226 radial, 16.2 NM, LAT 28°21'42"N, LON 81°33'29"W), from 6:00 PM until 4:00 AM, until further advised. The beam may be injurious to eyes if viewed within 3,000 feet vertically and/or 12,000 feet laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

### Lake Buena Vista, Florida

A laser light demonstration will be conducted at Epcot Center, Lake Buena Vista, Florida (ORL 226 radial, 16 NM, lat 28\*22'N, long 81\*32'W), from 6:00 pm until 4:00 am, until further advised. The beam may be injurious to eyes if viewed within 5000 feet vertically and/or 1 nautical mile laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

### Miami, Florida

A permanent laser light demonstration will be conducted at Bayfront Park, Miami, Florida (VKZ 312 radial, 2.24 NM, Lat 25°46'41"N, Lon 80°11'12"W), from 8:00 p.m. until 12:00 a.m. until further advised. The laser light beam is not expected to elevate above the horizon from a 90 foot high platform. Laser light beam may be injurious to eyes if viewed within 4,400 feet laterally of the light source. Cockpit illumination—flash blindness may occur beyond these distances.

### Miami Beach, Florida

A permanent Laser Light Demonstration will be conducted at the Amnesia Club, located in Miami Beach, Florida, Lat 25°46"N/Long 80°08"W, nightly from dusk until 2 AM.

Laser Light beam may be injurious to eyes if viewed within 3,500 feet vertically and/or 2,000 feet laterally of the light source. Cockpit illumination-flash blindness may occur beyond these distances.

### Orlando, Florida

A laser light demonstration will be conducted at Sea World of Florida, Orlando, Florida (ORL 220 radial, 11 NM, Lat 27°24′N, Long 81°27′W), from 6:30 pm until 12:00 am, until further advised. The beam may be injurious to eyes if viewed within 5000 feet vertically and/or 6500 feet laterally of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

A permanent laser light demonstration will be conducted at the Walt Disney World, Alien Encounter, Orlando, Florida, ORL VORTAC 239 radial, 15 nautical miles, from Dusk to 12:00 AM daily.

Laser light beam may be injurious to eyes if viewed within 2500 feet laterally and/or 2500 feet vertically of the light source. Cockpit illumination-flash blindness may occur beyond these distances.

### Decatur, Georgia

Laser light activity will be conducted at Agnes Scott College, Decatur, GA located at Lat 33° 45′ 55″N/Long 84° 17′ 39″W (ATL 041° radial, 11 NM), intermittent daily, at an angle of 90 degrees from the surface, projecting up to 14,036 feet, until further notice. Flash blindness or cockpit illumination may occur beyond these distances.

### Clemson, South Carolina

A permanent laser light demonstration will be conducted at Clemson University, Clemson, South Carolina, ELW VORTAC 353R/18NM, from dusk until dawn, daily.

Laser light beam may be injurious to eyes if viewed within 3,500 feet laterally and/or 3,500 feet vertically of the light source. Flash blindness or cockpit illumination may occur beyond these distances.

### LASER LIGHT EXPERIMENT

Arecibo Observatory, Puerto Rico

Location: 18°-20'-37"N 66°-45'-11"W

A Laser Light Beam Experiment will be conducted at the Arecibo Observatory, Puerto Rico (PSE 340/30), from one hour before sunset until one hour after sunrise twice weekly (by NOTAM).

Laser light beam may be injurious to eyes if viewed within 5,000 feet vertical and/or one nautical mile lateral of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

# MEMPHIS, TN MEMPHIS INTL AIRPORT (MEM) NOISE ABATEMENT PROCEDURES

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no later than 2 miles from the departure end of parallel runways, due to noise abatement restrictions.

# NASHVILLE, TN NASHVILLE INTL AIRPORT (BNA) NOISE ABATEMENT PROCEDURES

Successive or simultaneous departures from Runways 20L and 20R are authorized, with course divergence beginning within 1mile of the departure end of parallel runways, due to noise abatement restrictions.

# CHARLOTTE, NC CHARLOTTE/DOUGLAS INTL AIRPORT (CLT) NOISE ABATEMENT PROCEDURES

Successive or simultaneous departures from Runways 18L and 18R are authorized, with course divergence beginning no later than 3 miles from the departure end of parallel runways, due to noise abatement restrictions.

### AIRSPACE DELEGATED TO MACDILL AFB. FL

From 1100–2300 UTC (0700–1900 Local) daily, the following airspace that lies within the Tampa CLASS B Airspace will be delegated to McDill AFB ATCT for airport traffic control services, and CLASS B Airspace services will not be provided within this portion of the CLASS B Airspace:

That airspace which extends from 1,200 feet MSL up to and including 1,600 feet MSL, south of a line located  $1\frac{1}{2}$  miles west of and parallel to MacDill AFB Runway 4/22 extended runway centerline, within a 4.5 NM radius from the geographical center of the MacDill AFB Airport.

# Indianapolis ARTCC NABB INDIANA AREA

New Hope, London, Lexington Kentucky Area

Indianapolis Center has installed frequencies in the southern portion of their airspace that require 720-channel radio canability

Pilots should be aware that if they fly in the Nabb, IN, or the New Hope, London, and Lexington, KY, area without a 720-channel radio, ATC services will be greatly reduced. Traffic advisories, weather information, airport information, along with any other direct communication services will not be available.

While in this area of Indianapolis Center, pilots without 720-channel capability will, in most cases, monitor Flight Service Stations. There will be a noticeable delay in all clearance activity. Please ensure that ATC has adequate lead time in the event of problems or clearance requirements.

### HELICOPTER ACTIVITY ORLANDO, FL AREA.

Heavy helicopter activity over the Disney attractions, Sea World, Universal Studios, Bay Hill and surrounding area. Surface to 1000' MSL. Operations 24 hours daily. Helicopters, transmitting and receiving on 123.02.

### CAUTION-TETHERED AEROSTAT RADAR SYSTEM (TARS)

A TARS (a large helium-filled balloon) operates continuously up to 14,000 feet, except during inclement weather or when the system is down for maintenance, in R–2916 at Cudjoe Key, Florida. The tether is unmarked and is virtually impossible to see from only a few hundred feet. See the Miami Sectional Chart for location.

### SPECIAL NORTH ATLANTIC. CARIBBEAN AND PACIFIC AREA COMMUNICATIONS

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area: 123.45 MHz
Caribbean area: 123.45 MHz
Pacific area: 123.45 MHz

### ST. PETERSBURG. FLORIDA

Pilots planning to overfly the St. Petersburg VORTAC (PIE) below 13,000 feet MSL should file via the Lakeland VORTAC (LAL) between 1100 and 2300 UTC.

### **GEORGIA**

Atlanta Tower: Low altitude airway structure in proximity of the Hartsfield–Jackson Atlanta Intl Airport is aligned to provide bypass routes for traffic overflying Atlanta. To avoid heavy concentration of high performance and wide-bodied aircraft, pilots should file for airways beyond 35 nautical miles from Atlanta VOR. Aircraft operating IFR below 15,000 MSL, via airways within 35 nautical miles of Atlanta VOR may expect altitude changes and/or rerouting between the hours 0830 and 2100 local.

### **U.S. SPECIAL CUSTOMS REQUIREMENT**

Air Commerce Regulations of the Treasury Department's Customs Service require all private aircraft arriving in the U.S. from a foreign place in the Western Hemisphere, (a) south of 33 degrees north latitude which cross into the U.S. over a point on the U.S./Mexican border between 97 and 120 degrees west longitude, or (b) south of 31 degrees north latitude which enter the U.S. via the Gulf of Mexico and Atlantic Coasts, to provide notice of intended arrival to the Customs Service at least one hour prior to crossing the U.S./Mexican border or the U.S. coastline. This notice may be provided by: (1) radio through an appropriate FAA Flight Service Station, (2) normal FAA flight plan notification procedures (a flight plan filed in Mexico does not meet this requirement due to unreliable relay of data), or (3) directly to the District Director of Customs or other Customs officer at place of first intended landing. Unless an exemption has been granted by Customs, private aircraft are required to make first landing in the U.S. at one of the following designated airports nearest to the point of border or coastline crossing:

Brownsville/South Padre Island International, Corpus Christi International, Del Rio International, El Paso International, Laredo International, Maverick County Memorial International, McAllen Miller International, Presidio-Lely International, Southwest Texas Regional, or William P. Hobby Airport in Texas; Calexico International, or Brown Field Municipal in California; Bisbee Douglas International, Nogales International, Tuscon International, or Yuma MCAS/Yuma International in Arizona; Las Cruces Intl in New Mexico; Lakefront or Louis Armstrong New Orleans Intl in Louisiana; Fort Lauderdale-Hollywood International, Key West International, Miami International, Opa-Locka Executive Airport, Palm Beach International, St. Lucie County International, or Tampa International in Florida.

### MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

### CIVIL USE OF MILITARY FIELDS:

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission.

Army Installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations prior permission should be requested at least 30 days prior to first intended landing. An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the nearest U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

# AIRCRAFT RESTRICTIONS BOCA RATON AIRPORT (BCT), FLORIDA

On initial contact, pilot should advise local Air Traffic Control Tower or announce on local Unicom frequency if aircraft has greater than 79 feet wingspan and/or greater than 140 knot approach speed. Aircraft with wingspan greater than 79 feet and/or an approach speed greater than 140 knots are prohibited from using Runway 5/23 while any aircraft occupies Taxiway P. Aircraft with a wingspan greater than 79 feet must remain clear of Taxiway P while any aircraft are approaching or departing Runway 5/23.

### AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

### **FEDERAL AVIATION REGULATION 91.713**

The provisions of FAR 91.713 will apply as follows:

Air traffic clearances to aircraft of Cuban registry not engaged in scheduled International Air Service in U.S. airspace will require that the flight plan be filed with appropriate authorities at least five days prior to the proposed departure time. Route changes while en route will normally not be authorized. The procedures set forth herein do not apply at this time to overflights by aircraft of Cuban registry engaged in scheduled International Air Service.

### CAUTION—HIGH DENSITY AIR TRAFFIC AREA

Heavy helicopter and seaplane traffic exists over the Gulf of Mexico and adjacent onshore areas. Thousands of operations per month occur in this area in support of oil drilling and exploration.

Itinerant pilots traversing this area should familiarize themselves with offshore operating practices and frequencies through contact with the pertinent Flight Standards District Office (FSDO) or Flight Service Station.

### **CONTINUOUS POWER FACILITIES**

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

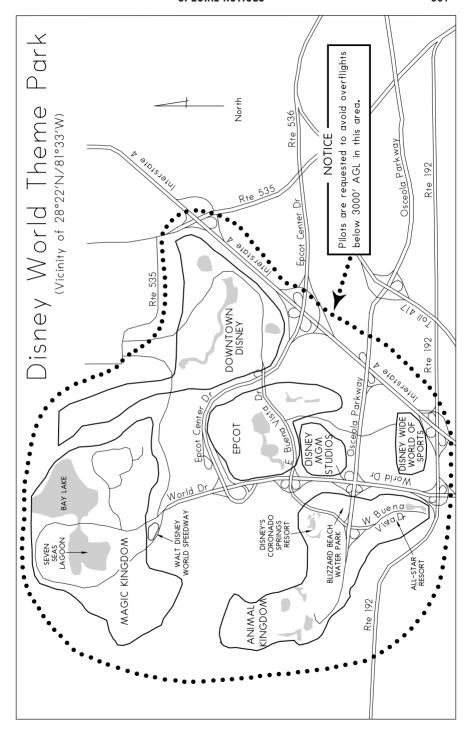
In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

- 1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
- 2. Wind Measuring Capability
- 3. Approach Light System (ALS) or Short ALS (SALS)
- 5. Touchdown Zone Lighting (TDZL)
- 4. Ceiling Measuring Capability
- 6. Centerline Lighting (CL)
- 7. Runway Visual Range (RVR)
- 8. High Intensity Runway Lighting (HIRL)
- 9. Taxiway Lighting
- 10. Apron Light (Perimeter Only)

The following have been designated "Continuous Power Airports," and have independent back up capability for the equipment installed.

| Airport/Ident               | Runway No. | Airport/Ident            | Runway No. |
|-----------------------------|------------|--------------------------|------------|
| Albuquerque, NM (ABQ)       | 08         | Milwaukee, WI (MKE)      | 01L        |
| Anchorage, AK (ANC)         | 07R        | Minneapolis, MN (MSP)    | 30L        |
| Andrews AFB, MD (ADW)       | 01L        | Nashville, TN (BNA)      | 02L        |
| Atlanta, GA (ATL)           | 09R        | New Orleans, LA (MSY)    | 10         |
| Baltimore, MD (BWI)         | 10         | New York, NY (JFK)       | 04R        |
| Bismarck, ND (BIS)          | 31         | New York, NY (LGA)       | 22         |
| Boise, ID (BOI)             | 10R        | Newark, NJ (EWR)         | 04R        |
| Boston, MA (BOS)            | 04R        | Oklahoma City, OK (OKC)  | 35R        |
| Charlotte, NC (CLT)         | 36L        | Omaha, NE (OMA)          | 14R        |
| Chicago, IL (ORD)           | 14R        | Ontario, CA (ONT)        | 26L        |
| Cincinnati, OH (CVG)        | 36C        | Philadelphia, PA (PHL)   | 09R        |
| Cleveland, OH (CLE)         | 06R        | Phoenix, AZ (PHX)        | 08         |
| Dallas/Fort Worth, TX (DFW) | 17C        | Pittsburgh, PA (PIT)     | 10L        |
| Denver, CO (DEN)            | 35R        | Reno, NV (RNO)           | 16R        |
| Des Moines, IA (DSM)        | 31         | Salt Lake City, UT (SLC) | 34L        |
| Detroit, MI (DTW)           | 03R        | San Antonio, TX (SAT)    | 12R        |
| El Paso, TX (ELP)           | 22         | San Diego, CA (SAN)      | 09         |
| Fairbanks, AK (FAI)         | 01L        | San Francisco, CA (SFO)  | 28R        |
| Great Falls, MT (GTF)       | 03         | San Juan, PR (SJU)       | 08         |
| Honolulu, HI (HNL)          | 08L        | Seattle, WA (SEA)        | 16C        |
| Houston, TX (IAH)           | 26L        | St. Louis, MO (STL)      | 30R        |
| Indianapolis, IN (IND)      | 05L        | Tampa, FL (TPA)          | 36L        |
| Jacksonville, FL (JAX)      | 07         | Tulsa, OK (TUL)          | 36R        |
| Kansas City, MO (MCI)       | 19R        | Washington, DC (DCA)     | 01         |
| Los Angeles, CA (LAX)       | 24R        | Washington, DC (IAD)     | 01R        |
| Memphis, TN (MEM)           | 36L        | Wichita, KS (ICT)        | 01L        |
| Miami, FL (MIA)             | 08R        |                          |            |

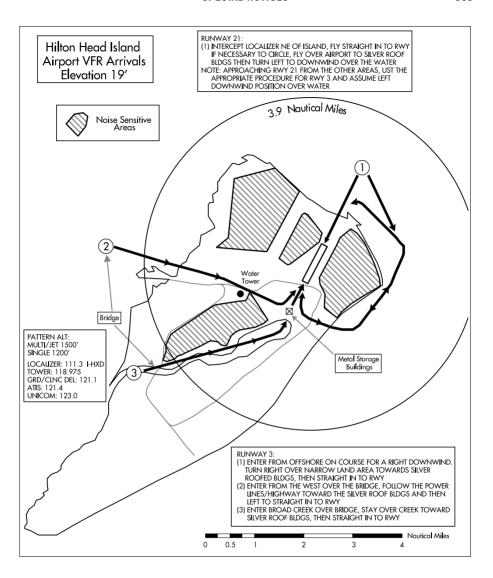
NOTE—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

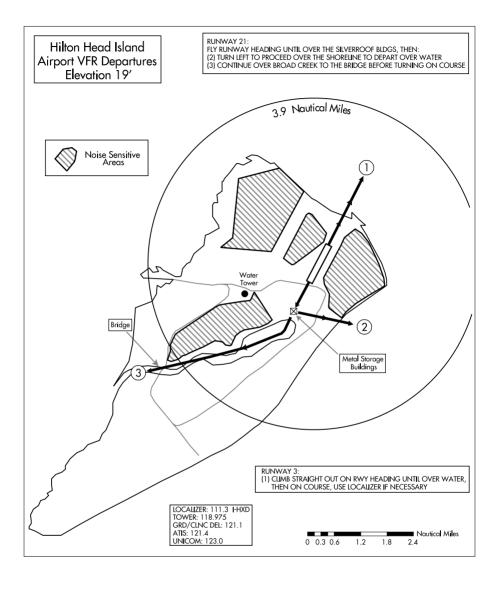


SE, 17 DEC 2009 to 11 FEB 2010

# DISNEY WORLD THEME PARK NOTICE

Pursuant to Public Law 108–199, Section 521, aircraft flight operations are prohibited at and below 3,000 feet AGL within a 3 nautical mile radius of the Disney World Theme Park (282445N/081342W or the Orlando (ORL) VORTAC 238 degree radial at 14.8 nautical miles). This restriction does not apply to: (A) those aircraft authorized by ATC for operational or safety purposes, including aircraft arriving or departing from an airport using standard air traffic procedures; (B) Department of Defense, law enforcement, or aeromedical flight operations that are in contact with ATC; Those who meet any of the following criteria may apply for a waiver to these restrictions: (A) for operational purposes of the venue, including the transportation of equipment or officials of the governing body; (b) for safety and security purposes of the venue.





# BOWMAN FIELD

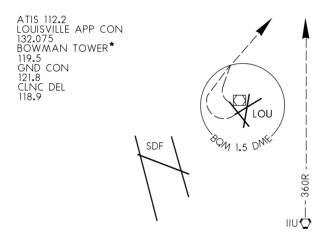
### TERMINAL AREA GRAPHIC NOTICE

(Not to be used for navigation)

Bowman Airport Runway 24 and Runway 33 VFR Departure Procedure.

"SENECA DEPARTURE"

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.



Remaining within  $1\frac{1}{2}$  miles from Bowman VOR (BQM), turn right heading 045, maintaining VFR at or below 2500 feet. Expect IFR activation and climb upon crossing the IIU 360 radial

WEATHER MINIMUMS: Ceiling 3000 and visibility 3 miles.

NOTE: Receipt of a clearance to climb above 2500 feet constitutes activation of IFR clearance upon leaving 2500 feet.

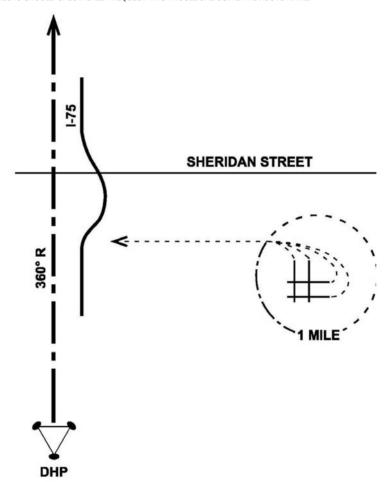
### HOLLYWOOD/NORTH PERRY (HWO) HOLLYWOOD, FL

TERMINAL AREA GRAPHIC NOTICE (Not to be used for navigation)

Hollywood/North Perry Airport Runway 9L, 9R, 36L and 36R VFR Departure Procedure.

### "SHERIDAN DEPARTURE"

PILOTS SHOULD SPECIFICALLY REQUEST THIS PROCEDURE USING THE ABOVE NAME.



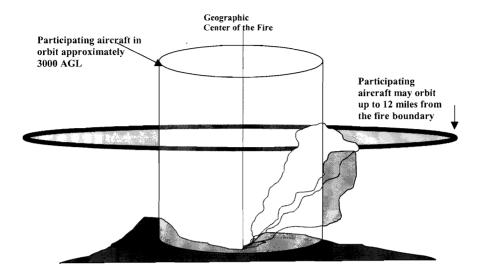
ATIS 135.475
MIAMI APPROACH CONTROL 128.6
NORTH PERRY TOWER 132.1
GROUND CONTROL 120.45

Remain within 1 mile from HWO airport, if departing north or east turn left to heading 260. Remain south of Sheridan Street VFR at or below 1500. Expect IFR activation and climb crossing I75 (5 miles west of HWO) or the DHP 360 radial.

WEATHER MINIMUMS: Ceiling 2000 and visibility 3 miles.

NOTE: Receipt of a clearance to climb above 1500 constitutes activation of IFR clearance.

### FIREFIGHTING TRAFFIC AREAS



Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, Patterns, and/or Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

# DESTIN-FT WALTON BEACH, FLORIDA VALPARAISO TERMINAL AREA

Part 93, Subpart F, prescribes that Valparaiso, Florida, Terminal Area, and the special air traffic rules for operating aircraft within specific corridor.

#### - North-South Corridor.

Before operating within the corridor, obtain a clearance from the Eglin Radar Control Facility or an appropriate FAA ATC facility, and maintain two-way radio communication with the Eglin Radar Control Facility while within the corridor.

### - East-West Corridor.

Before operating within the corridor, establish two-way radio communications with Eglin Radar Control Facility or an appropriate FAA ATC facility for an ATC advisory concerning operations being conducted therein; and maintain two-way radio communications with the Eglin Radar Control Facility while within the corridor. For Destin/Eglin AFB FL Part 93 Operations details, see FAASafety.gov Knowledge Course at: http://faasafety.gov/gslac/ALC/course\_catalog.aspx.

### OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93–1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at http://www.faa.gov. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e–CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll–free telephone number for accessing e–CVRS is 1–800–875–9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll–free areas may access e–CVRS by calling the toll number of 703–707–0568. The Internet web address for accessing the e–CVRS is <a href="http://www.fly.faa.gov/ecvrs">http://www.fly.faa.gov/ecvrs</a>. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904–4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high-density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904–4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

NOTE: Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e–CVRS.

### FSS TELEPHONE NUMBERS

Flight Service Station (FSS) facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Puerto Rico, are provided by a network of large hub facilities and smaller remote facilities which are interconnected with the hubs.

Selected remote FSS facilities across the contiguous United States have variable part-time operating hours. Because of the interconnectivity between remote and hub facilities, all FSS services are available continuously using published telephone numbers and radio frequencies.

### SOUTHEAST U.S.

FLORIDA: St. Petersburg, St. Petersburg—Clearwater International (PIE) — PIE FSS NORTH CAROLINA: Raleigh, Raleigh—Durham International (RDU) — RDU FSS

TENNESSEE: Nashville, Nashville International (BNA) — BNA FSS

Telephone Information Briefing Service (TIBS) is a FSS service that provides continuous recordings of meteorological and/or aeronautical information including area and/or route briefings, airspace procedures and special announcements. A touch-tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

### NATIONAL FSS TELEPHONE NUMBER

### OTHER FSS TELEPHONE NUMBERS (except in Alaska)

| TIBS (see description above)  | 1-877-4TIBS-WX (1-877-484-2799) |
|-------------------------------|---------------------------------|
| Clearance Delivery Only       | 1-888-766-8267                  |
| Lifeguard Flights Only        | 1-877-LIF-GRD3 (1-877-543-4733) |
| Flights within DC SFRA & FRZ* | 1-866-225-7410                  |

<sup>\*</sup> District of Columbia Special Flight Rules Area & Flight Restricted Zone

390 FAA AND NWS

# KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

TAF KPIT 091730Z 091818 15005KT 5SM HZ.FEW020 WS010/31022KT FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA OVC008CB

FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB 18/16 A2992 RMK SLP045 T01820159

| Forecast | Explanation   | Report      |
|----------|---|-------------|
| TAF      | Message type: <u>TAF-routine or <u>TAF AMD-amended forecast</u>, <u>METAR-hourly</u>, <u>SPECI-special or <u>TESTM-non-commissioned ASOS</u> report</u></u>   | METAR       |
| KPIT     | ICAO location indicator   | KPIT        |
| 091730Z  | Issuance time: ALL times in UTC "Z", 2-digit date, 4-digit time   | 091955Z     |
| 091818   | Valid period: 2-digit date, 2-digit beginning, 2-digit ending times   |             |
|          | In U.S. <b>METAR</b> : <u>COR</u> rected ob; or <u>AUTO</u> mated ob for automated report with no human intervention; omitted when observer logs on   | COR         |
| 15005KT  | Wind: 3 digit true-north direction, nearest 10 degrees (or <u>VaRiaBle</u> ); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>G</u> ust and maximum speed; 00000KT for calm; for <b>METAR</b> , if direction varies 60 degrees or more, <u>V</u> ariability appended, e.g. 180 <u>V</u> 260   | 22015G25KT  |
| 5SM      | Prevailing visibility: in U.S., Statute Miles & fractions; above 6 miles in TAF Plus6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)  | 3/4SM       |
|          | Runway Visual Range: R; 2-digit runway designator Left, Center, or Right as needed; '\sumsymbol'; Minus or Plus in U.S., 4-digit value, FeeT in U.S., (usually meters elsewhere); 4-digit value Variability 4-digit value (and tendency Down, Up or No change)  | R28L/2600FT |
| HZ       | Significant present, forecast and recent weather: see table (on back)   | TSRA        |
| FEW020   | Cloud amount, height and type: SKy Clear 0/8, FEW >0/8-2/8, SCaTtered 3/8-4/8, BroKeN 5/8-7/8, OVerCast 8/8; 3-digit height in hundreds of ft; Towering CUmulus or CumulonimBus in METAR; in TAF, only CB. Vertical Visibility for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated METAR reports only, CLeaR for "clear below 12,000 feet" | OVC010CB    |
|          | Temperature: degrees Celsius; first 2 digits, temperature "/" last 2 digits, dew-point temperature; Minus for below zero, e.g., M06   | 18/16       |
|          | Altimeter setting: indicator and 4 digits; in U.S., A-inches and hundredths; (Q-hectoPascals, e.g., Q1013)  | A2992       |

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### KEY to AERODROME FORECAST (TAF) and **AVIATION ROUTINE WEATHER REPORT** (METAR)

| Forecast      | Explanation  | Report                     |
|---------------|--|----------------------------|
| WS010/31022KT | In U.S. <b>TAF</b> , non-convective low-level (≤2,000 ft) <u>Wind Shear</u> ; 3-digit height (hundreds of ft); "/"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, <u>KT</u>      |                            |
|               | In <b>METAR</b> , <u>ReMarK</u> indicator & remarks. For example: <u>Sea-Level Pressure</u> in hectoPascals & tenths, as shown: 1004.5 hPa; <u>Temp/dew-point</u> in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C | RMK<br>SLP045<br>T01820159 |
| FM1930        | <u>FroM</u> and 2-digit hour and 2-digit minute <b>beginning</b> time: indicates significant change. Each FM starts on new line, indented 5 spaces.  |                            |
| TEMPO 2022    | TEMPOrary: changes expected for < 1 hour and in total, < half of 2-digit hour <b>beginning</b> and 2-digit hour <b>ending</b> time period  |                            |
| PROB40 0407   | PROBability and 2-digit percent (30 or 40): probable condition during 2-digit hour <b>beginning</b> and 2-digit hour <b>ending</b> time period   |                            |
| BECMG 1315    | BECoMinG: change expected during 2-digit hour <b>beginning</b> and 2-digit hour <b>ending</b> time period  |                            |

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

| QUALIFIER  |   |      |                     |      |                     |       |                          |
|--|---|------|---------------------|------|---------------------|-------|--------------------------|
| Intensity or Proximity                             |   |      |                     |      |                     |       |                          |
|  | ight  |      | sign* Moderate      |      |                     |       |                          |
| VC   | VC Vicinity: but not at aerodrome; in U.S. METAR, between 5 and 10SM of the point(s) of |      |                     |      |                     |       |                          |
| 1  | observation; in U   | J.S. | TAF, 5 to 10SM fron | n ce | nter of runway comp | lex ( | (elsewhere within 8000m) |
| Descr  | iptor   |      |                     |      |                     |       |                          |
| MI   | Shallow   | BC   | Patches             | PR   | Partial             | TS    | Thunderstorm             |
| BL   | Blowing   | SH   | Showers             | DR   | Drifting            | FΖ    | Freezing                 |
| WEA  | THER PHENO  | OME  | NA                  |      |                     |       |                          |
| Precip   | oitation  |      |                     |      |                     |       |                          |
|  |   |      | Rain                |      | Snow                | SG    | Snow grains              |
|  |   |      | Ice pellets         |      |                     | GS    | Small hail/snow pellets  |
| UP Unknown precipitation in automated observations |   |      |                     |      |                     |       |                          |
|  | ıration   |      |                     |      |                     |       |                          |
|  | Mist (≥5/8SM)   |      | Fog (<5/8SM)        |      | Smoke               | VA    | Volcanic ash             |
| SA   | Sand  | ΗZ   | Haze                | PΥ   | Spray               | DU    | Widespread dust          |
| Other  |   |      |                     |      |                     |       |                          |
|  | - 1   |      |                     |      | Duststorm           | PO    | Well developed           |
| L FC   | Funnel cloud  | +FC  | tornado/waterspout  |      |                     |       | dust/sand whirls         |

- Explanations in parentheses "()" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS TAFs exclude turbulence, icing & temperature forecasts; NWS METARs exclude trend fcsts
   Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility ≥10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

  UNITED STATES DEPARTMENT OF COMMERCE

NOAA/PA 96052 National Oceanic and Atmospheric Administration—National Weather Service

### FAA AND NWS KEY AIR TRAFFIC FACILITIES

### **Air Traffic Control System Command Center**

Main Number......703–904–4400

| RGNL AIR TRAFFIC DIVISIONS |              |  |  |
|----------------------------|--------------|--|--|
| REGION                     | TELEPHONE    |  |  |
| Alaskan                    | 907-271-5464 |  |  |
| Central                    | 816-329-2500 |  |  |
| Eastern                    | 718-553-4502 |  |  |
| Great Lakes                | 847-294-7202 |  |  |
| New England                | 781-238-7500 |  |  |
| Northwest Mountain         | 425-227-2500 |  |  |
| Southern                   | 404-305-5500 |  |  |
| Southwest                  | 817-222-5500 |  |  |
| Western Pacific            | 310-725-6500 |  |  |

### AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

| ARTCC<br>NAME  | *24 HR RGNL<br>DUTY OFFICE<br>TELEPHONE # | BUSINESS<br>HOURS | BUSINESS<br>TELEPHONE # |
|----------------|---|-------------------|-------------------------|
| Albuquerque    | 817-222-5006                              | 7:30 a.m4:00 p.m. | 505-856-4300            |
| Anchorage      | 907-271-5936                              | 7:30 a.m4:00 p.m. | 907-269-1137            |
| Atlanta        | 404-305-5180                              | 7:30 a.m5:00 p.m. | 770-210-7601            |
| Boston         | 617-238-7001                              | 7:30 a.m4:00 p.m. | 603-879-6633            |
| Chicago        | 847-294-8400                              | 8:00 a.m4:00 p.m. | 630-906-8221            |
| Cleveland      | 847-294-8400                              | 8:00 a.m4:00 p.m. | 440-774-0310            |
| Denver         | 425-227-1389                              | 7:30 a.m4:00 p.m. | 303-651-4100            |
| Ft. Worth      | 817-222-5006                              | 7:30 a.m4:00 p.m. | 817-858-7300            |
| Houston        | 817-222-5006                              | 7:30 a.m4:00 p.m. | 281-230-5300            |
| Indianapolis   | 847-294-8400                              | 8:00 a.m4:00 p.m. | 317-247-2231            |
| Jacksonville   | 404-305-5180                              | 8:00 a.m4:30 p.m. | 904-549-1501            |
| Kansas City    | 816-329-3000                              | 7:30 a.m4:00 p.m. | 913-254-8500            |
| Los Angeles    | 661-265-8200                              | 7:30 a.m4:00 p.m. | 661-265-8200            |
| Memphis        | 404-305-5180                              | 7:30 a.m4:00 p.m. | 901-368-8103            |
| Miami          | 404-305-5180                              | 7:00 a.m3:30 p.m. | 305-716-1500            |
| Minneapolis    | 847-294-8400                              | 8:00 a.m4:00 p.m. | 651-463-5580            |
| New York       | 718-995-5426                              | 8:00 a.m4:40 p.m. | 516-468-1001            |
| Oakland        | 310-725-3300                              | 6:30 a.m3:00 p.m. | 510-745-3331            |
| Salt Lake City | 425-227-1389                              | 7:30 a.m4:00 p.m. | 801-320-2500            |
| Seattle        | 425-227-1389                              | 7:30 a.m4:00 p.m. | 253-351-3500            |
| Washington     | 718-995-5426                              | 8:00 a.m4:30 p.m. | 703-771-3401            |

### MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONS)

| TRACON<br>NAME   | *24 HR RGNL<br>DUTY OFFICE<br>TELEPHONE # | BUSINESS<br>HOURS | BUSINESS<br>TELEPHONE # |
|------------------|---|-------------------|-------------------------|
| Atlanta          | 404-305-5180                              | 7:00 a.m3:30 p.m. | 404-669-1200            |
| Chicago          | 847-294-8400                              | 8:00 a.m4:00 p.m. | 847-608-5509            |
| Dallas/Ft. Worth | 817-222-5006                              | 7:30 a.m4:00 p.m. | 972-615-2500            |
| Denver           | 425-227-1389                              | 7:30 a.m4:00 p.m. | 303-342-1500            |
| Houston          | 817-222-5006                              | 7:30 a.m4:00 p.m. | 281-230-8400            |
| New York         | 718-995-5426                              | 8:00 a.m4:30 p.m. | 516-683-2901            |
| Northern CA      | 310-725-3300                              | 7:00 a.m3:30 p.m. | 916-366-4001            |
| Southern CA      | 310-725-3300                              | 7:30 a.m4:00 p.m. | 858-537-5800            |

<sup>\*</sup>Facilities can be contacted through the RgnI Duty Officer during non-business hours.

### FAA AND NWS

# KEY AIR TRAFFIC FACILITIES DAILY NAS REPORTABLE AIRPORTS

| AIRPORT  | *24 HR RGNL<br>DUTY OFFICE   | BUSINESS                                   | BUSINESS                     |
|--|------------------------------|--|------------------------------|
| NAME   | TELEPHONE #                  | HOURS                                      | TELEPHONE #                  |
| Albuquerque Intl Sunport, NM                           | 817-222-5006                 | 8:00 a.m5:00 p.m.                          | 505-842-4366                 |
| Andrews AFB, MD  | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 301-735-2380                 |
| Baltimore/Washington                                   |                              |  |                              |
| Intl Thurgood Marshall, MD                             | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 410-962-3555                 |
| Boston Logan Intl, MA                                  | 781–238–7001                 | 7:30 a.m4:00 p.m.                          | 617-455-3100                 |
| Bradley Intl, CT                                       | 617-238-7001                 | 7:30 a.m4:00 p.m.                          | 203-627-3428                 |
| Burbank/Bob Hope, CA                                   | 310–725–3300<br>404–305–5180 | 7:00 a.m5:30 p.m.<br>8:00 a.m4:30 p.m.     | 818–567–4806<br>704–344–6487 |
| Charlotte Douglas Intl, NC<br>Chicago Midway, IL       | 847-294-8400                 | 8:00 a.m.–4:00 p.m.<br>8:00 a.m.–4:00 p.m. | 773-884-3670                 |
| Chicago O'Hare Intl, IL                                | 847-294-8400                 | 8:00 a.m.–4:00 p.m.                        | 773-601-7600                 |
| Cleveland Hopkins Intl, OH                             | 847-294-8400                 | 8:00 a.m4:00 p.m.                          | 216-898-2020                 |
| Covington/Cincinnati, OH                               | 708-294-7401                 | 8:00 a.m4:30 p.m.                          | 606-767-1006                 |
| Dallas/Ft. Worth Intl, TX                              | 817-222-5006                 | 8:30 a.m.–5:00 p.m.                        | 972-615-2531                 |
| Dayton Cox Intl, OH                                    | 847-294-8400                 | 7:30 a.m4:00 p.m.                          | 937-454-7300                 |
| Denver Intl, CO  | 425-227-1389                 | 7:30 a.m4:00 p.m.                          | 303-342-1600                 |
| Detroit Metro, MI                                      | 847-294-8400                 | 8:00 a.m4:00 p.m.                          | 734-955-5000                 |
| Fairbanks Intl, AK                                     | 907-271-5936                 | 7:30 a.m4:00 p.m.                          | 907-474-0050                 |
| Fort Lauderdale Intl, FL                               | 404-305-5180                 | 7:00 a.m3:30 p.m.                          | 305-356-7932                 |
| George Bush  |                              |  |                              |
| Intercontinental/Houston, TX                           | 817-222-5006                 | 7:30 a.m4:00 p.m.                          | 713-230-8400                 |
| Hartsfield-Jackson Atlanta Intl, GA                    | 404–305–5180                 | 7:00 a.m3:30 p.m.                          | 404-669-1200                 |
| Honolulu Intl, HI                                      | 310-643-3200                 | 7:30 a.m4:00 p.m.                          | 808-840-6100                 |
| Houston Hobby, TX<br>Indianapolis Intl, IN             | 817-222-5006<br>847-294-8400 | 8:00 a.m5:00 p.m.<br>8:00 a.m4:00 p.m.     | 713–847–1400<br>317–484–6600 |
| Kahului/Maui, HI                                       | 310-643-3200                 | 7:30 a.m.–4:00 p.m.                        | 808-877-0725                 |
| Kansas City Intl, MO                                   | 816-329-3000                 | 7:30 a.m.–4:00 p.m.                        | 816-329-2700                 |
| Las Vegas McCarran, NV                                 | 310-725-3300                 | 7:30 a.m.–4:00 p.m.                        | 702-262-5978                 |
| Los Angeles Intl, CA                                   | 310-725-3300                 | 7:00 a.m3:30 p.m.                          | 310-342-4900                 |
| Louis Armstrong New Orleans                            |                              |  |                              |
| Intl, LA   | 817-222-5006                 | 7:00 a.m4:30 p.m.                          | 504-471-4300                 |
| Memphis Intl, TN                                       | 404-305-5180                 | 7:30 a.m4:00 p.m.                          | 901-322-3350                 |
| Miami Intl, FL   | 404-305-5180                 | 7:00 a.m4:00 p.m.                          | 305-869-5400                 |
| Minneapolis/St. Paul, MN                               | 847-294-8400                 | 8:00 a.m4:00p.m.                           | 612-713-4000                 |
| Nashville Intl, TN                                     | 404–305–5180                 | 7:00 a.m3:30 p.m.                          | 615-781-5460                 |
| New York Kennedy Intl, NY                              | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 718-656-0335                 |
| New York La Guardia, NY<br>Newark Liberty Intl, NJ     | 718–995–5426<br>718–995–5426 | 8:00 a.m4:30 p.m.<br>8:00 a.m4:30 p.m.     | 718–335–5461<br>973–645–3103 |
| Norman Y. Mineta San Jose Intl, CA                     | 310-643-3200                 | 7:30 a.m.–4:00 p.m.                        | 408-982-0750                 |
| Ontario Intl, CA                                       | 310-643-3200                 | 7:30 a.m4:00 p.m.                          | 909-983-7518                 |
| Orlando Intl, FL                                       | 404-305-5180                 | 7:30 a.m.–5:00 p.m.                        | 407-850-7000                 |
| Philadelphia Intl, PA                                  | 718-995-5426                 | 8:00 a.m.–4:30 p.m.                        | 215-492-4100                 |
| Phoenix Sky Harbor Intl, AZ                            | 310-643-3200                 | 7:30 a.m4:00 p.m.                          | 602-379-4226                 |
| Pittsburgh Intl, PA                                    | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 412-269-9237                 |
| Portland Intl, OR                                      | 425-227-1389                 | 7:30 a.m4:00 p.m.                          | 503-493-7500                 |
| Raleigh-Durham, NC                                     | 404-305-5180                 | 8:00 a.m4:30 p.m.                          | 919-840-5544                 |
| Ronald Reagan Washington                               |                              |  |                              |
| National, DC   | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 703-413-1535                 |
| Salt Lake City, UT                                     | 425–227–1389                 | 7:30 a.m4:00 p.m.                          | 801–325–9600                 |
| San Antonio Intl, TX                                   | 817-222-5006                 | 8:00 a.m4:30 p.m.                          | 210-805-5507                 |
| San Diego Lindbergh Intl, CA<br>San Francisco Intl, CA | 310–725–3300<br>310–643–3200 | 8:00 a.m4:30 p.m.<br>7:00 a.m3:30 p.m.     | 619–299–0677<br>650–876–2883 |
| San Francisco Inti, CA<br>San Juan Inti, PR            | 404–305–5180                 | 7:30 a.m.–5:00 p.m.                        | 809-253-8663                 |
| Seattle-Tacoma Intl, WA                                | 425-227-1389                 | 7:30 a.m4:00 p.m.                          | 206-768-2900                 |
| St. Louis Lambert, MO                                  | 816-329-3000                 | 7:30 a.m.–4:00 p.m.                        | 314-890-1000                 |
| Tampa Intl, FL   | 404–305–5180                 | 7:30 a.m.–4:00 p.m.                        | 813-371-7700                 |
| Ted Stevens Anchorage Intl, AK                         | 907-271-5936                 | 7:30 a.m4:00 p.m.                          | 907-271-2700                 |
| Teterboro, NJ  | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 201-288-1889                 |
| Washington Dulles Intl, DC                             | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 703-661-6031                 |
| West Palm Beach, FL                                    | 404-305-5180                 | 8:00 a.m4:30 p.m.                          | 407-683-1867                 |
| Westchester Co, NY                                     | 718-995-5426                 | 8:00 a.m4:30 p.m.                          | 914-948-6520                 |

SE, 17 DEC 2009 to 11 FEB 2010

Air Route Traffic Control Center frequencies and their remoted transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

#### (R)ATLANTA CENTER

H-6-9-10-12, L-18-22-24-25-26-36, A-1

(KZTL)

Albemarle - 133.15 Anniston - 134.95

Athens - 127.5 127.5 124.45 120.425

Atlanta A - 135.0

Augusta - 128.1

Birmingham - 134.05 128.725 Black Jack Mountain - 127.05

Chattanooga - 133.175 132.05 126.675 124.875

Columbus - 125.575 120.45

Crossville - 133.6 132.675 125.925 Foothills - 124.375

Gadsden - 133.8 Glade Springs - 127.85

Greensboro - 128.8 124.425

Hampton - 128.0 127.125 126.475 124.325

Hickory - 134.55 132.975 125.15

Huntsville - 126.825

Jonesville - 125.025 119.575

Macon - 134.5 126.425 123.95 119.575

Millen - 135.55

Monroeville - 118.55

Montgomery - 134.6 128.025 125.875 120.55

Mount Oglethorpe - 134.8 133.1 121.35

Newport - 134.075 127.55 Owing - 135.35 125.625 123.725

Statham - 132.475 132.475

Sugarloaf Mountain - 132.625 Tri City - 126.775 120.725

Uniontown - 133.25 132.25

#### (R)HOUSTON CENTER - 134.35

H-6-7-8-9, L-17-18-19-20-21-22 (KZHU)

H-5-9-10-12, L-16-25-26-27-29

Arr-Dep US - 135.77 134.95 133.75 133.4 132.65 132.4 128.3 127.8 125.75 120.35

Arr-Dep US-South Atlantic Control N of 31°30' - 135.05 S of 31°30'N 134.85

Mobile - 127.65 125.775

RINDIANAPOLIS CENTER - 133.425 132.775 128.375 125.55

124.525 119.55 Evansville - 132.525 128.3

Livingston - 134.675 126.925

London 2 - 126.57 124.625 121.325

Lvnch - 126.575

New Hope - 124.625 121.175

Portsmouth - 124.225 120.275

Tri City - 124.575

Winchester - 128.22 126.375 123.775

#### R JACKSONVILLE CENTER

H-6-7-8-9-12, L-18-21-22-24-25-35-36, A-1

(KZJX)

(KZID)

Albany - 134.45 125.75

Alma - 135.975 133.3 132.3

Charleston - 135.05 133.625 132.475 127.95 124.075

Columbia - 127.875 124.7

Crestview - 134.15 124.475 120.2

Davtona Beach - 134.0

Dothan - 134.3

Eglin - 132.1

Florence - 134.35 133.45

Gainesville - 135.65 134.4 124.75

Glynco - 126.75

Jacksonville - 134.85 126.35

Lake City - 125.375

Lowell - 135.75 133.325 125.175

Millen - 132.5

Myrtle Beach - 135.05 128.7

CONTINUED ON NEXT PAGE

#### AIR ROUTE TRAFFIC CONTROL CENTERS

#### CONTINUED FROM PRECEDING PAGE

Panama City - 119.1

Perry Foley - 127.8

St. Augustine - 134.575 132.825 127.475 126.35

Savannah - 132.425 126.125 120.85

Tallahassee - 135.325 128.625 128.075 125.05

Valdosta - 133.7 125.95

(R)MEMPHIS CENTER — 127.975 124.025

H-5-6-9, L-15-16-17-18-22-25-26

(KZME)

Columbus - 134.775 133.125 127.1

Graham - 125.85 124.275

Huntsville - 120.8

McKellar - 134.65 127.975 126.45 124.35

Memphis - 135.225 118.625

Nashville - 133.85 124.125 118.875

Nashville/Joelton 132.1 Paducah - 133.65 Shelbyville - 126.75 South Fulton - 128.05 Tupelo - 135.9 135.9 134.4

R MIAMI CENTER

H-8. L-21-22-23-24. A-1

(KZMA)

Avon Park - 134.55 127.2 126.525 Fort Myers - 134.75 133.275

Grand Bahama Island - 134.2

Grand Turk - 135.2 132.3

Key West - 133.5 132.2 132.2 124.7 124.7 Melbourne - 135.075 128.65 124.1 119.825

Miami - 132.95 133.85 133.2 133.95 132.4 127.7 126.325 124.7 124.7

Nassau - 134.8 125.7

Pahokee - 133.55 132.45

Sarasota - 133.9 132.35 128.225 Vero Beach - 135.7 132.25 125.075

West Palm Beach - 135.175 133.4 132.15

CENTER REMARKS: All northbound IFR flights entering Miami in vicinity of Grand Turk and Great Inagua must contact Miami Center on 132.3/307.2 at least 10 minutes prior to the Miami Center boundary for an air traffic clearance. Alternate communications are avbl thru ARINC or Miami Radio. This is due to heavy air traffic congestion in this area.

R SAN JUAN CENTER

H-2-3, L-5-6 (ZSU) (MJZS)

Boringuen - 135.7 135.7 124.35

El Yungue - 134.3 134.3 128.65 128.6 125.0 125.0 118.75 118.75 118.15 118.15

Pico Del Este - 134.3 134.3 128.65 128.65 125.0 125.0 118.15 118.15

CENTER REMARKS: All acft on an IFR flight plan in the San Juan CTA and within 200 NM of San Juan are requested to ctc San Juan Center on the following frequencies: Amber 300 clockwise thru Amber 523—134.3; East of Amber 523 clockwise to North of Blue 520—125.0; Blue 520 clockwise thru Amber 636—118.15; Red 763 clockwise thru Green 431—135.7. San Juan Cerap provides IFR clearances for St Croix Christiansted on freq 121.7 when St Croix twr closed. San Juan Cerap provides IFR clearances for St Thomas Charlotte Amalie-Harry S Truman on freq 121.9 when twr closed. San Juan Cerap provides IFR clearances for Ponce-Mercedita on freq 121.9. San Juan Cerap provides IFR clearances for Mayaguez-Eugenio Maria De Hostos on freg 121.7.

RWASHINGTON CENTER

H-9-10-12, L-24-25-26-29-34-35-36

Arr-Dep US - 135.5 133.82 133.12 132.55 128.52 127.7 127.42 124.02 123.85 118.82

(KZDC)

Green Bay - 133.725 127.75 Johnsonville - 135.2 118.925

Manteo - 124.725

New Bern - 135.5 118.825

Rocky Mount - 118.475 132.225

Sampson - 135.3

Whaleyville - 133.825 128.525 127.425 123.85

Wilmington - 124.025

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. "T" indicates transmit only and "R" indicates receive only. RCO's available at NAVAIDS are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

#### ANDERSON AFSS

**AIKEN RCO 122.45** 

ALLENDALE VOR 116.7T 122.1R

ANDERSON RCO 122.2 123.6

CHARLESTON VORTAC 113.5T 122.1R 122.2 122.5

CHESTERFIELD VOR/DME 108.2T 122.05R

COLLIERS VORTAC 113.9T 122.1R

COLUMBIA VORTAC 114.7T 122.1R 122.65

FLORENCE VORTAC 115.2T 122.1R 122.6

FOOTHILLS VORTAC 113.4T 122.1R

FORT MILL VORTAC 112.4T 122.1R

GRAND STRAND VORTAC 117.6T 122.1R 123.6

GREENWOOD VORTAC 115.5T 122.1R 122.625

GREER RCO 122.2 122.65

HILTON HEAD ISLAND RCO 122.55

SPARTANBURG VORTAC 115.7T 122.1R

VANCE VORTAC 110.4T 122.1R

#### **ANNISTON AFSS**

ANNISTON RCO 122.2 123.6

BIRMINGHAM RCO 122.2 123.65

BROOKLEY VORTAC 112.8T 122.1R

CRIMSON VORTAC 117.8T 122.1R

DECATUR RCO 122.6

DOTHAN RCO 122.2 122.5

EUFAULA VORTAC 109.2T 122.1R

GADSDEN VOR/DME 112.3T 122.1R

HAMILTON RCO 122.3

HUNTSVILLE RCO 122.2

MOBILE RCO 122.2 123.65

MONROEVILLE VORTAC 116.8T 122.1R

MONTGOMERY VORTAC 112.1T 122.1R 122.2 122.55

MUSCLE SHOALS RCO 122.2 122.4

SELMA RCO 122.4

TALLADEGA VOR/DME 108.8T 122.05R

TUSCALOOSA RCO 122.2

TUSKEGEE VOR/DME 117.3T 122.1R

VULCAN VORTAC 114.4T 122.1R

WIREGRASS VORTAC 111.6T 122.1R

#### GAINESVILLE AFSS 122.1R 122.2 122.5 123.65

CRAIG VORTAC 114.5T 122.1R 122.2 122.45

CRESTVIEW RCO 122.0 122.2 122.45

CROSS CITY VORTAC 112.0T 122.1R

GATORS VORTAC 116.2T 122.1R

GREENVILLE VORTAC 109.0T 122.1R

LAKE CITY RCO 122.6

MARIANNA VORTAC 114.0T 122.1R

OCALA VORTAC 113.7T 122.1R

PALATKA RCO 122.25

PANAMA CITY VORTAC 114.3T 122.1R

PENSACOLA RCO 122.2 122.6

PERRY RCO 122.45

ST AUGUSTINE RCO 122.3

SAUFLEY VOR 108.8T 122.1R

SEMINOLE VORTAC 117.5T 122.1R 122.2 122.4

TAYLOR VORTAC 112.9T 122.1R

#### **JACKSON AFSS**

CLARKSVILLE VOR/DME 110.6T 122.1R
DYERSBURG RCO 122.2 122.45
GRAHAM VORTAC 111.6T 122.1R 122.25
JACKS CREEK VOR/DME 109.4T 122.1R
JACKSON RCO 122.2 122.65 127.15
MEMPHIS VORTAC 117.5T 122.1R 122.2 123.65

#### **LOUISVILLE AFSS**

BOWLING GREEN RCO 122.2 122.4 CENTRAL CITY VORTAC 109.8T 122.1R CINCINNATI VORTAC 117.3T 122.1R FALMOUTH VOR/DME 117.0T 122.1R FRANKFORT VOR 109.4T 122.1R HAZARD VOR/DME 111.2T 122.1R LEXINGTON VORTAC 112.6T 122.1R LONDON VORTAC 116.1T 122.1R 122.2 122.65 LOUISVILLE RCO 122.1R 122.2 122.45 MADISON RCO 122.3 NEW HOPE VOR/DME 110.8T 122.1R NEWCOMBE VORTAC 110.4T 122.1R OWENSBORO VOR/DME 108.6T 122.1R PADUCAH RCO 122.2 122.5 PIKEVILLE RCO 122.05 SOMERSET RCO 122.55

YORK VORTAC 112.8T 122.1R

#### MACON AFSS

ALBANY RCO 122.6

ALMA VORTAC 115.1T 122.1R 123.6

ATHENS VORTAC 109.6T 122.1R

ATLANTA VORTAC 116.9T 122.1R 122.2 122.6

BRUNSWICK VORTAC 109.8T 122.1R 122.2

CHOO CHOO VORTAC 115.8T 122.1R

COLUMBUS VORTAC 117.1T 122.1R 122.65

DANIEL RCO 122.3

DUBLIN VORTAC 113.1T 122.1R 122.6

GAINESVILLE RCO 122.55

HARRIS RCO 122.35

LAGRANGE VORTAC 115.6T 122.1R

MACON RCO 122.0 122.1R 122.2 122.4

MOULTRIE VOR/DME 108.8T 122.1R

PEACHTREE VOR/DME 116.6T 122.1R

**ROME RCO 122.3** 

SAVANNAH VORTAC 115.95T 122.1R 123.65

STATESBORO RCO 122.6

THOMASVILLE RCO 122.55

TIFT MYERS RCO 122.35

VALDOSTA VOR/DME 114.8T 122.1R 122.2

VIENNA VORTAC 116.5T 122.1R

WAYCROSS VORTAC 110.2T 122.1R

# MIAMI AFSS 122.2 122.3 122.55 123.65 MIAMI IFSS 127.9 126.9 126.7

DADE COLLIER RCO 122.3

DAVIE RCO 126.7

DOLPHIN VORTAC 113.9T 122.1R

FORT MYERS RCO 122.1R 122.2 122.65

FORT PIERCE RCO 122.55

KEY WEST VORTAC 113.5T 122.1R 122.2 123.65

LA BELLE VORTAC 110.4T 122.1R

MARATHON RCO 122.6

NAPLES RCO 123.6

PAHOKEE VORTAC 115.4T 122.1R 122.35

PALM BEACH VORTAC 115.7T 122.1R 122.4

VIRGINIA KEY VOR/DME 117.1T 122.1R

#### **NASHVILLE AFSS**

BRISTOL RCO 122.2

CHATTANOOGA RCO 122.2 123.65

CROSSVILLE RCO 122.2 122.5

HINCH MOUNTAIN VORTAC 117.6T 122.1R

HOLSTON MOUNTAIN VORTAC 114.6T 122.1R

LIVINGSTON VORTAC 108.4T 122.1R

MCGHEE TYSON RCO 122.2 122.3

NASHVILLE RCO 122.1R 122.2 122.55

SHELBYVILLE VOR/DME 109.0T 122.1R

VOLUNTEER VORTAC 116.4T 122.1R

#### **RALEIGH AFSS**

BARRETTS MOUNTAIN VOR/DME 110.8T 122.1R

CHARLOTTE RCO 122.4

COFIELD VORTAC 114.6T 122.1R

ELIZABETH CITY VOR/DME 112.5T 122.05R 122.2

FAYETTEVILLE VOR/DME 108.8T 122.1R

GREENSBORO VORTAC 116.2T 122.1R 122.2 123.65

HATTERAS RCO 122.3

HICKORY RCO 122.2 122.6

KINSTON VORTAC 109.6T 122.15R

LIBERTY VORTAC 113.0T 122.1R

NEW BERN VOR/DME 113.6T 122.1R 122.2 122.4

PITT-GREENVILLE RCO 122.35

RALEIGH RCO 122.2 122.45 122.65

**ROCKY MOUNT RCO 122.2 122.3** 

SANDHILLS VORTAC 111.8T 122.1R

SNOWBIRD VORTAC 108.8T 122.1R

SUGARLOAF MOUNTAIN VORTAC 112.2T 122.1R 122.2 122.3

TAR RIVER VORTAC 117.8T 122.1R

WILKESBORO RCO 122.4

WILMINGTON VORTAC 117.0T 122.1R 122.55

#### SAINT PETERSBURG AFSS

BROOKSVILLE RCO 122.3

FORT DRUM RCO 122.2

LAKELAND VORTAC 116.0T 122.1R

MELBOURNE VOR/DME 110.0T 122.1R 122.6

ORLANDO VORTAC 112.2T 122.1R 122.2 122.65 123.65

ORMOND BEACH VORTAC 112.6T 122.1R 122.4

PUNTA GORDA RCO 122.025

ST PETERSBURG VORTAC 116.4T 122.1R 122.2 122.45 123.6

SARASOTA VORTAC 115.2T 122.1R

SEBRING RCO 122.25

TITUSVILLE RCO 123.6

VERO BEACH VORTAC 117.3T 122.1R 122.2 122.5

#### **SAN JUAN AIFSS**

BORINQUEN VORTAC 113.5T 122.1R

MAYAGUEZ VOR/DME 110.6T 122.1R

PONCE VOR/DME 109.0T 122.1R

ST CROIX VOR/DME 108.2T 122.1R

ST THOMAS VOR/DME 108.6T 123.6R

SAN JUAN RCO 126.7 123.65 122.2

# **FLIGHT STANDARDS DISTRICT OFFICES (FSDO)**

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office–Federal Aviation Administration.

#### **ALABAMA**

Liberty Park Building 1500, Suite 250 1500 Urban Center Drive Vestavia Hills, AL 35242 Telephone: 205–731–1557

#### **FLORIDA**

Ft. Lauderdale Jet Center 1050 Lee Wagener Blvd. Ft. Lauderdale, FL 33315 Telephone: 954–635–1300

5950 Hazeltine National Drive Suite 500 Orlando, FL 32822–5023 Telephone: 407–812–7700 Fax: 407–812–7710

8600 NW 36th Street Miami, FL 33166 Telephone: 305-716-3400

5601 Mariner St, Suite 310 Tampa, FL 33609 Telephone: 813–287–4900 Fax: 813–639–1551

#### **GEORGIA**

Campus Building 1701 Columbia Ave. Suite 2–110 College Park, GA 30337–2748 Telephone: 404–305–7200 Fax: 404–305–7215

#### **KENTUCKY**

1930 Bishop Lane Waterson Towers, 11th Floor Louisville, KY 40218 Telephone: 502–753–4200

#### **NORTH CAROLINA**

6433 Bryan Blvd. Greensboro, NC 27409 Telephone: 336-662-1000

3800 Arco Corporate Drive, Suite 233

Charlotte, NC 28273 Telephone: 704-319-7020

#### **PUERTO RICO**

525 F.D. Roosevelt Ave. La Torre de Plaza, Suite 901 San Juan, PR 00918 Telephone: 787-764-2538

### **SOUTH CAROLINA**

125-B Summer Lake Drive West Columbia, SC 29170 Telephone: 803-765-5931

#### **TENNESSEE**

2 International Plaza Drive, Suite 700 Nashville, TN 37217

Telephone: 615-324-1300

2842 Business Park Drive, Bldg G Memphis, TN 38118 Telephone: 901–322–8600

# ROUTES PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

- 1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.
- 2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).
- 3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.
- 4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.
  - 5. Where more than one route is listed the routes have equal priority for use.
  - 6. Official location identifiers are used in the route description for VOR/VORTAC navaids.
  - 7. Intersection names are spelled out.
- 8. Navaid radial and distance fixes (e.g., ARD201113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW081); or an intersection (e.g., GSW081 FITCH).
- 9. Where two navaids, an intersection and a navaid, a navaid and a navaid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.
- 10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.
  - 11. (90-170 incl) altitude flight level assignment in hundred of feet.
- 12. The notations "pressurized" and "unpressurized" for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.
  - 13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.

| Sun          | 1300-2259 local time. |
|--------------|-----------------------|
| Mon thru Fri | 0701-2259 local time. |
| Sat          | 0701-1459 local time. |

- 14. Use current SIDs and STARSs for flight planning.
- 15. For high altitude routes, the portion of the routes contained in brackets is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

#### **LOW ALTITUDE**

| Terminals                        | Route                                       | Effective<br>Times<br>(UTC) |
|----------------------------------|---|-----------------------------|
| ATLANTA METRO AREA               |   |                             |
| Chicago Midway (MDW)             | (60-170 incl) V97 NELLO V311 HCH V51 CGT    | 1200-0300                   |
| Chicago O'Hare (ORD)             | (60-170 incl) V97 NELLO V311 HCH V51 CGT V7 |                             |
|                                  | BEBEE                                       | 1200-0300                   |
| Cincinnati (CVG)                 | (80-170 incl) V97 VXV V115 AZQ V339 FLM     | 1200-0300                   |
| CINCINNATI METRO AREA (CVG, LUK) |   |                             |
| Detroit/Wayne (DTW)              | DQN MIZAR-STAR                              | 1100-0300                   |
| Detroit Satellites:              |   |                             |
| Ann Arbor (ARB)                  | DQN CRUXX-STAR                              | 1100-0300                   |
| Pontiac (PTK),                   |   |                             |
| Willow Run (YIP)                 | DQN CRUXX-STAR                              |                             |
| Windsor (CYQG),                  |   |                             |
| Young (DET)                      | V275 KLINE VWV VWV064 LYNTN                 |                             |

| Terminals                                | Route   | Effective<br>Times<br>(UTC) |
|--|---|-----------------------------|
| From COVINGTON (CVG) only                | V07 1848 / V007 1170 V400 W0444                   | 4400 0000                   |
| Atlanta (ATL)                            | V97 VWV V267 HRS V463 WOMAC                       | 1100-0300                   |
| Chicago Midway (MDW)                     | V128 VHP BVT V97 CGTV128 VHP BVT V97 CGT V7 BEBEE | 1100-0300                   |
| Chicago O'Hare (ORD)                     | V128 VHP BV1 V97 CG1 V7 BEBEEV128 VHP             | 1100-0300<br>1100-0300      |
| Indianapolis (IND)<br>Knoxville (TYS)    | HYK V97   | 1100-0300                   |
| Louisville (SDF)                         | CVG206 IIU055 IIU                                 | 1100-0300                   |
| Pittsburgh (PIT)                         | (60–170 incl) V128 YRK V44 JPU V117 WISKE         | 1100 0000                   |
|  | WISKE-STAR  | 1100-0300                   |
| DAYTONA BEACH                            |   |                             |
| Miami (MIA)                              | (110 and below) V3 MLB V437 PHK V267 BRIKL        | 1300-0300                   |
| FT LAUDERDALE METRO AREA (FLL, FXE, PMP) |   |                             |
| Cross City (CTY)                         | (at or below 50) DHP V97 LBV V157 LAL V7          | 1030-0300                   |
|  | (60–170) V511 LAL V7                              | 1030-0300                   |
| Daytona Beach (DAB)                      | (at or below 100) PBI V3 SMYRA                    | 1030-0300                   |
|  | (110-170) V159 TBIRD MLB V3                       | 1030-0300                   |
| Ft. Myers (FMY)(RSW)                     | (at or below 50) DHP V521                         | 1030-0300                   |
| Ft. Pierce (FPR)                         | (at or below 100) V3                              | 1030-0300                   |
|  | (110–170) V159 TBIRD                              | 1030-0300                   |
| Gainesville (GNV)                        | (at or below 50) DHP V97 LBV V157                 | 1030-0300                   |
|  | (60–170) V511 LAL V157                            | 1030-0300                   |
| Jacksonville (JAX)                       | (at or below 90) PBI V3 OMN V51 CRG               | 1030-0300                   |
| ,  | or  |                             |
|  | (130–170) ORL V267 CRG<br>or                      | 1030-0300                   |
| Labeland (LAL)                           | V159 VRB V3 OMN V51 CRG                           | 4000 0000                   |
| Lakeland (LAL)                           | (at or below 50) DHP V97 LBV110 V157              | 1030-0300                   |
|  | or<br>(60–170) V511                               | 1020 0200                   |
| Melbourne (MLB)                          | (at or below 100) V3                              | 1030-0300<br>1030-0300      |
|  | or  | 1000 0000                   |
|  | (110-170) FLL V159 TBIRD                          | 1030-0300                   |
| Ocala (OCF)                              | (at or below 50) DHP V97 LBV V157                 | 1030-0300                   |
|  | Or<br>(00 470) V544 LAL V457                      | 4000 0000                   |
| Orlando (MCO)                            | (60–170) V511 LAL V157                            | 1030-0300                   |
| Orlando (MCO)                            | (at or below 100) PBI V531 ORLor                  | 1030-0300                   |
|  | (110-170) V159 TBIRD V531 ORL                     | 1030-0300                   |
| Sarasota/Bradenton (SRQ)                 | (60-170) LBV V97 ROGAN                            | 1030-0300                   |
|  | or  |                             |
|  | (60–170) SRQ                                      | 1030–3000                   |
|  | (at or below 50) DHP V97 ROGAN                    | 1030-0300                   |
|  | (60–170) ROGAN                                    | 1030-0300                   |
| Tallahassee (TLH)                        | (at or below 50) DHP V97 LBV V157 LAL V7 SZW.     | 1030-0300                   |
|  | (60–170) V511 LAL V7 SZW                          | 1030-0300                   |
| Tampa (TPA)                              | (60–170) LBV BRDGE–STAR                           | 1030-0300                   |
|  | or  |                             |
|  | (60-170) BRDGE BRDGE-STAR                         | 1030-0300                   |
|  | or<br>(at or below 50) DHP V97 PIE                | 1030-0300                   |
|  | or  | 1030-0300                   |
|  | (60-170, GPS or DME/DME-IRU equipped)             |                             |
|  | DEAKK DEAKK (RNAV)-STAR                           | 1030-0300                   |
|  | or  |                             |
|  | (60–170, GPS or DME/DME-IRU equipped) LBV         | 4000 00                     |
| Vora Basch (VBB)                         | DEAKK (RNAV)-STAR                                 | 1030-0300                   |
| Vero Beach (VRB)                         | (at or below 100) V3                              | 1030-0300                   |

| Terminals                                       | Route  | Effective<br>Times<br>(UTC) |
|---|--|-----------------------------|
|   | or<br>(110–170) V159 TBIRD   | 1030-030                    |
| FORT MYERS METRO AREA (RSW, FMY, APF, MKY, PGD) | (110-170) V133 IBIND   | 1030-030                    |
| Daytona Beach (DAB)                             | ORL  | 1030-030                    |
| Ft. Lauderdale (FLL)                            | (RSW/FMY/PGD-prop/turbo) RSW V599<br>or  | 1030-030                    |
|   | (RSW/FMY/PGD-turbo/jets) FORTL JINGL<br>(RNAV)-STAR                            | 1030-030                    |
|   | or<br>(APF/MKY prop/turbo) DRCTor  | 1030-030                    |
|   | FORTL JINGL (RNAV)- STAR   | 1030-030                    |
| Ft. Pierce (FPR)                                | V225   | 1030-030                    |
| Gainesville (GNV)                               | V7 LAL V157  | 1030-030                    |
| Jacksonville (JAX)                              | ORL V267 CRG   | 1030-030                    |
| Lakeland (LAL)                                  | V7 LAL   | 1030-030                    |
| Melbourne (MLB)                                 | V225 VRB   | 1030-030                    |
|   | V35 CURVE  | 1030-030                    |
| Miami (MIA)                                     | or   |                             |
|   | or   | 1030-030                    |
|   | (Turbojets–GPS or DME/DME–IRU equipped) CYY                                    |                             |
| Orlando (MCO)                                   | SSCOT (RNAV)-STAR(Jets) LAL ORL  | 1030-030                    |
|   | or<br>(Turbo/Props) ORLor  | 1030-030                    |
|   | (Jets) LAL MINEE-STAR  | 1030-030                    |
|   | (Jets) DOWNN MINEE-STAR  | 1030-030                    |
| Ocala (OCF)                                     | (Turbo/Props) DOWNN MINEE-STAR<br>V7 LAL V157                                  | 1030-030<br>1030-030        |
| Tallahassee (TLH)                               | V7 SZW   | 1030-030                    |
| Tampa (TPA)                                     | (at or below 100) V35 PIEor  | 1030-030                    |
|   | (110–170) RSW BRDGE–STAR<br>or   | 1030-030                    |
|   | (GPS or DME/DME-IRU equipped) DEAKK  |                             |
|   | (RNAV)-STAR  | 1030-030                    |
| Vero Beach (VRB)                                | V225   | 1030-030                    |
| GAINESVILLE (GNV)                               |  |                             |
| Ft. Lauderdale (FLL)                            | (100 and below) V157 NEWER   | 0000-23                     |
| Ft. Myers (FMY)                                 | (100 and below) V157 LAL V521  | 0000-23                     |
| Miami (MIA)                                     | (100 and below) V157 LBV V529 V35 CURVE  | 0000-23                     |
| Orlando (ORL)                                   | (100 and below) V157 OCF V159  | 1100-040                    |
| Sarasota/Bradenton (SRQ)                        | (100 and below) V157 LAL   | 0000-23                     |
|   | (100 and below) V157 OCF V581 DADES  | 0000-23                     |
| Tampa (TPA)  JACKSONVILLE METRO AREA (JAX)      |  |                             |
| Miami (MIA)<br>Tampa (TPA)                      | (100 and below) V3 MLB V437 PHK V267 BRIKL<br>(100 and below) OCF V581 DADESor | 1300-030<br>0000-235        |
|   | (100 and below, GPS or DME/DME-IRU   |                             |
| (EY WEST METRO AREA (NQX)                       | equipped) OCF V581 DADES (RNAV)-STAR   | 0000–235                    |
| Daytona Beach (DAB)                             | RSW ORL  | 1030-030                    |
| Ft Myers (RSW)                                  | EYW V539 GOODY(props) EYW V157 DHP   | 1030-030                    |
|   | or<br>(jets-all others) EYW DVALL-STAR   | 1030-030                    |
|   | or<br>(jets-/E,/G,/R,/J,/L,/Q) EYW CURSO<br>(RNAV)-STAR                        | 1030-030                    |
|   | (NINA)   | T030-030                    |

| Terminals  | Route   | Effective<br>Times<br>(UTC) |
|--|---|-----------------------------|
| Melbourne (MLB)                                    | EYW PHK   | 1030-0300                   |
| Miami (MIA)  | (props) EYW V157  | 1030-0300                   |
|  | (Jets-all others) EYW DVALL-STARor                                | 1030-0300                   |
|  | (Jets-/E,/G,/R,/J,/L,/Q) EYW CURSO<br>(RNAV)-STAR                 | 1030-0300                   |
| Orlando (MCO)                                      | (props) EYW V225 RSW MINEE-STAR                                   | 4000 0000                   |
| Palm Beach (PBI)                                   | (Jets) EYW V225 RSW LAL MINEE-STAR<br>EYW PHK                     | 1030-0300<br>1030-0300      |
| Sarasota/Bradenton (SRQ)                           | (at or below 100) EYW V225 RSW V35 MURDO or                       | 1030-0300                   |
|  | (110-170) EYW V225 RSW V7 ROGAN                                   |                             |
| Tallahassee (TLH)                                  | EYW V225 RSW V7 SZW   | 1030-0300                   |
| Tampa (TPA)  | (at or below 100) EYW V225 RSW V35 PIE                            |                             |
|  | (110-170) EYW V225 RSW V7 ROGAN                                   |                             |
|  | BRDGE-STAR  | 1030-0300                   |
|  | (110-170, GPS or DME/DME-IRU equipped) EYW V225                   |                             |
| Vero Beach (VRB)                                   | RSW V7 ROGAN DEAKK (RNAV)-STAR<br>EYW PHK V51                     | 1030-0300<br>1030-0300      |
| LAKELAND METRO AREA (LAL, GIF, BOW, BKV, X16)      |   |                             |
| Ft Lauderdale (FLL)                                | (Jets only-all others) V7 RSW FORTL-STAR                          | 1030-0300                   |
| Ft. Myers (FMY)                                    | V521  | 1030-0300                   |
| Ft Pierce (FPR)                                    | (at or below 140) V441 DEARY V159 or                              | 1030-0300                   |
|  | (150-170) VRB   | 1030-0300                   |
| Key West (EYW)<br>Miami (MIA)                      | V7 RSW V225(100 and below) V157 LBV V529 V35 CURVE                | 1030-0300                   |
| ivilaliii (iviiA)                                  | or (all others) CYY CYY-STAR                                      | 1030-0300                   |
|  | or<br>(Turbojets–GPS or DME/DME–IRU equipped) CYY                 |                             |
| Opa Locka (OPF)                                    | SSCOT (RNAV)-STAR<br>(props/turbo) V511 NEWER                     |                             |
| Opa Locka (OFT)                                    | or  |                             |
|  | (Turbojets-GPS or DME/DME-IRU equipped) RSW CYY SSCOT (RNAV)-STAR |                             |
| Vero Beach (VRB)                                   | (at or below 140) V441 DEARY V159                                 | 1030-0300                   |
|  | (150–170) VRB   | 1030-0300                   |
| West Palm Beach (PBI)                              | PHK   | 1030-0300                   |
| Atlanta (ATL)                                      | HYK V53 AZQ SOT WHINZ-STAR  |                             |
| Kansas City (MKC)                                  | V4 PXV V190 SGF TYGER-STAR  | 0000-2359                   |
| Wichita (ICT)                                      | V4 PXV V190 SGF V132 CNU V350                                     | 0000–2359                   |
| Chicago Midway (MDW)                               | SPI MOTIF-STAR  | 0000-2359                   |
| Chicago O'Hare (ORD)                               | MAW V313 PNT V227 PLANO   | 1100-0300                   |
|  | or<br>PNT V227 PLANO  | 0000–2359                   |
| MIAMI METRO AREA (MIA, HWO, OPF,<br>TMB, HST, X51) |   |                             |
| Cross City (CTY)                                   | V97 LBV V157 LAL V7or   | 1030-0300                   |
|  | LAL   | 1030-0300                   |

| Ferminals  | Route   | Effective<br>Times<br>(UTC) |
|--|---|-----------------------------|
| Daytona Beach (DAB)                                | (at or below 100) PBI V3 SMYRA                  | 1030-030                    |
| Ft Pierce (FPR)                                    | (110–170) V437 MLB V3                           | 1030-030<br>1030-030        |
|  | (110–170) V267 PHK V51 VRBor                    | 1030-030                    |
| Gainesville (GNV)                                  | FPR   | 1030-030                    |
| Jacksonville (JAX)                                 | LAL(at or below 90) PBI V3 OMN V51 CRGor        | 1030-030<br>1030-030        |
|  | (at 110) PHK V437 MLB V3 OMN V51 CRG            | 1030-030                    |
|  | (130–170) V267 CRG                              | 1030-030                    |
| Lakeland (LAL)                                     | V97 LBV V157 LALor                              | 1030-030                    |
| Melbourne (MLB)                                    | LAL(at or below 100) V3                         | 1030-030<br>1030-030        |
| Melocume (MED)                                     | or  | 1000 000                    |
|  | (120–170) PBI V531 TBIRD                        | 1030-030                    |
| New Orleans (MSY)                                  | (below FL180) LBV SRQ AM<br>DHP V97 LBV V157    | 1100-03                     |
| Ocala (OCF)  | or  | 1030-03                     |
|  | LAL   | 1030-03                     |
| Orlando (MCO)                                      | (at or below 100) PBI V531 ORL                  |                             |
|  | or<br>(110–170) V267 PHK GOOFY-STAR             | 1030-03                     |
| Overwater Routes to the Northeast                  | PERMT ILM or PERMT DIW                          | 4000 00                     |
| Sarasota/Bradenton (SRQ)                           | V97 ROGAN<br>DHP V97 LBV V157 LAL V7 SZW        | 1030-03<br>1030-03          |
| Tallahassee (TLH)                                  | V97 LBV BRDGE-STAR                              | 1030-03                     |
| Tampa (117)  | or  | 1000 00                     |
|  | (GPS or DME/DME-IRU equipped) V97 LBV           | 4000 00                     |
| Vero Beach (VRB)                                   | DEAKK(at or below 100) PBI V3                   | 1030-03<br>1030-03          |
| vero beach (VRb)                                   | or  | 1030-03                     |
|  | (110–170) V267 PHK V51or                        | 1030-03                     |
| ACIDALE  | (110–170) VRB                                   | 1030-03                     |
| ASHVILLE Tallahassee (TLH)                         | RQZ TDG TGE RRS                                 | 1100-23                     |
| RLANDO METRO AREA (MCO, ORL, ISM,                  | NQZ TOU TUE INIO                                | 1100-23                     |
| LEE, SFB) Ft Lauderdale (FLL)                      | (at or below 100) PHK V267 BRIKL                | 1030-03                     |
|  | or<br>(110–170) PHK V267 BRIKL                  | 1030-03                     |
| Ft Pierce (FPR)                                    | V159 VRB  | 1030-03                     |
| Key West (EYW)                                     | RSW V225  | 1030-03                     |
| Miami (MIA)  | (at or below 100) PHK V267 BRIKL                | 1030-03                     |
| West Palm Beach (PBI)                              | (props/turbo props) V159 VRB V295 STOOP<br>V492 | 1030-03                     |
|  | or<br>(Jets only) PHK                           | 1030-03                     |
|  | or<br>(Turbojets-GPS or DME/DME-IRU equipped)   |                             |
| ALM DEAGLEMETRO ADEA (DD), DOT                     | DEARY VRB FRWAY (RNAV)-STAR                     |                             |
| PALM BEACH METRO AREA (PBI, BCT,<br>LNA, UTX, SUA) |   |                             |
| Cross City (CTY)                                   | (at or below 140) V531 BAIRN OCF V159           |                             |
|  | or<br>(150–170) LAL V7                          | 1030-030                    |
|  | (±00 ±10) LAL ¥1                                | 1030-030                    |

|                                   | _  | Effective<br>Times     |
|-----------------------------------|--|------------------------|
| Terminals                         | Route  | (UTC)                  |
| Daytona Beach (DAB)               | V3 SMYRA   | 1030-0300              |
|                                   | or<br>V531 TBIRD MLB V3 SMYRA  | 1030-0300              |
| Ft. Myers (RSW)                   | RSW  | 1030-0300              |
| Jacksonville (JAX)                | (at or below 110) V3 VRB V51 CRG<br>or                                     |                        |
|                                   | (130-170) ORL V267 CRG   | 1030-0300              |
| Lakeland (LAL)                    | LBV V157   | 1030-0300              |
|                                   | Or<br>(SUA Dop) I AI   |                        |
| Melbourne (MLB)                   | (SUA Dep) LAL  |                        |
| Weibourie (WED)                   | or   |                        |
|                                   | (120–170) PBI V531 TBIRD   | 1030-0300              |
| Ocala (OCF)                       | (at or below 140) V531 BAIRN OCF   |                        |
|                                   | or   |                        |
|                                   | (150-170) LAL OCF  |                        |
| Orlando (ORL/MCO)                 | V531 BAIRN GOOFY-STAR  | 1030-0300              |
| Overwater Routes to the Northeast | A699 STIFF AR7   |                        |
| Sarasota/Bradenton (SRQ)          | LBV V97 ROGANor  |                        |
|                                   | (SUA Dep) SRQ  |                        |
| Tallahassee (TLH)                 | (at or below 140) V531 BAIRN OCF V159 CTY V7                               |                        |
| Tanana5555 (1211)                 | SZW  |                        |
|                                   | or   |                        |
|                                   | (150–170) LAL V7 SZW   | 1030-0300              |
| Tampa (TPA)                       | LBV BRDGE-STAR   |                        |
|                                   | or   |                        |
|                                   | BRDGE BRDGE-STAR   | 1030-0300              |
|                                   | OF   |                        |
|                                   | (GPS or DME/DME-IRU equipped) DEAKK DEAKK                                  | 1000-0300              |
|                                   | (RNAV)-STAR  | 1000-0300              |
|                                   | (GPS or DME/DME-IRU equipped) LBV DEAKK                                    |                        |
|                                   | (RNAV)-STAR  | 1000-0300              |
| Vero Beach (VRB)                  | (at or below 100) PBI V3   |                        |
|                                   | or   |                        |
|                                   | (110-170) V531 TBIRD   | 1030-0300              |
| From STUART (SUA) only:           |  |                        |
| Cross City (CTY)                  | (at or below 120) BAIRN OCF V159   |                        |
|                                   | or<br>(130, 170) LAL V7  | 1030-0300              |
| Lakeland (LAL)                    | (130–170) LAL V7<br>TBIRD V531 ODDEL V441 LAL                              | 1030-0300              |
| Ocala (OCF)                       | TBIRD V531 BAIRN   | 1030-0300              |
| Tallahassee (TLH)                 | (at or below 120) BAIRN OCF V159 CTY V7 SZW                                |                        |
|                                   | or   |                        |
|                                   | (130-170) LAL V7 SZW   | 1030-0300              |
| SARASOTA/BRADENTON AREA (SRQ)     |  |                        |
| Ft Lauderdale (FLL)               | (at or below 100, below 210 kts) RSW V599                                  |                        |
| ,                                 | NEWER  |                        |
|                                   | or   |                        |
|                                   | (110-170), below 210 kts) LBV V157 NEWER                                   |                        |
|                                   | or   |                        |
|                                   | (at or above 210 kts) V579 RSW V7 KUBIC                                    |                        |
|                                   | Or<br>(all others) DSW FORTL STAR  | 1030-0300              |
|                                   | (all others) RSW FORTL–STAR  | 1030-0300              |
|                                   | (/E, /G, /R, /J, /L, /Q) RSW SWAGS   |                        |
|                                   | (RNAV)-STAR  |                        |
| Ft Myers (RSW)                    | V579 RSW   | 1030-0300              |
| Orlando (MCO)                     | LAL MINEE-STAR   | 1030-0300              |
| West Palm Beach (PBI)             | SABEE JOOOE WLACE (RNAV)-STAR  |                        |
| TALLAHASSEE AND CROSS CITY AREA   | /400   | 4400 05                |
| Ft Myers (FMY)                    | (120 and below) CTY V7 LAL V521(170 and below) LAL V157 LBV V529 V35 CURVE | 1100-0300<br>1300-0300 |
| Miami (MIA)                       | (110 alla Delow) LAL VIST LDV VOZO VOO CURVE                               | 1300-0300              |
|                                   |  |                        |

| Terminals  | Route   | Effective<br>Times<br>(UTC) |
|--|---|-----------------------------|
| TAMPA/ST PETERSBURG METRO AREA<br>(TPA, SPG, PIE, TPF) |   |                             |
| Ft Lauderdale (FLL)                                    | (Jets only) RSW V7 KUBIC FLL  |                             |
|  | (all others) RSW FORTL–STAR   |                             |
|  | (Turboprop-all others) RSW FORTL-STAR                                 | 1030-0300                   |
|  | (props only) V509 HALLR V511 NEWER                                    | 1030-0300                   |
|  | or<br>(GPS or DME/DME-IRU equipped) SABEE RXXAN                       |                             |
| Ft Myers (RSW)   | JINGL (RNAV)-STAR<br>PIE V579 RSW                                     |                             |
|  | or<br>(Turbojets-GPS or DME/DME-IRU equipped) SRQ                     |                             |
| Ft Pierce (FPR)  | TYNEE (RNAV)-STAR   |                             |
| FL PIETCE (FPR)  | (at or below 140) V441 DEARY V159                                     |                             |
| Key West (EYW)   | (150–170) VRB<br>PIE V35 RSW V225                                     | 1030-0300                   |
| Mr. and (MIA)  | or<br>V579 RSW V225   | 1030-0300                   |
| Miami (MIA)  | RSW V35 CURVEor   | 1030-0300                   |
|  | (all others) CYY CYY-STARor   | 1030-0300                   |
|  | (Turbojets-GPS or DME/DME-IRU equipped) CYY<br>SSCOT (RNAV)-STAR      |                             |
| Opa Locka (OPF)  | (props) V509 HALLR V511 NEWER<br>or                                   |                             |
|  | (turbo) RSW V7 KUBIC  |                             |
|  | (turbo) V509 HALLR V511 NEWER   | 1030-0300                   |
|  | or<br>(jets) RSW CYY CYY-STAR   | 1030-0300                   |
|  | or<br>(Turbojets-GPS or DME/DME-IRU equipped) RSW                     |                             |
| Orlando (MCO)  | CYY SSCOT (RNAV)-STARLAL MINEE-STAR (Max alt. 12,000 ft)              | 1030-0300                   |
| Vero Beach (VRB)                                       | (at or below 140) V441 DEARY V159                                     |                             |
| West Palm Beach (PBI)                                  | (150–170) VRB   | 1030-0300                   |
| 2000 (. 2)   | or  |                             |
|  | (Turbojets-GPS or DME/DME-IRU equipped) SABEE JOOOE WLACE (RNAV)-STAR |                             |
|  |   |                             |

**NORTHEAST** 

### PREFERRED IFR ROUTES

## SPECIAL LOW ALTITUDE ARRIVAL ROUTES FOR ATLANTA TERMINAL AREA (JETS AND TURBOPROPS)

| Traffic entering ZTL airspace V97 and East to     |  |           |
|---|--|-----------|
|   | VXV AWSON-STAR   |           |
|   | SOT ODF AWSON-STAR   |           |
|   | SUG ODF AWSON-STARSPA ODF AWSON-STAR                       |           |
|   | ELW ODF AWSON-STAR   |           |
| SOUTHEAST   | LEW ODI AWOON OTAN   |           |
| Traffic entering ZTL airspace South of V66 to     | East of a line from ATL to MGR file:                       |           |
|   | IRQ TRBOW-STAR   |           |
|   | DBN TRBOW-STAR   |           |
|   | MCN TRBOW-STAR   |           |
| SOUTHWEST   |  |           |
| Traffic entering ZTL airspace South of V278 to    | o West of a line from ATL to MGR file:                     |           |
|   | LDK V66 LGC MIKEE-STAR                                     |           |
|   | MEI V56 MGM LGC MIKEE-STAR                                 |           |
|   | MVC MGM LGC MIKEE-STAR                                     |           |
|   | CEW MGM LGC MIKEE-STAR                                     |           |
|   | SZW PZD CSG LGC MIKEE-STAR                                 |           |
| NORTHWEST   |  |           |
| Traffic entering ZTL airspace on V278 and No      |  |           |
|   | IGB V278 VUZ V417 MAYES V325 DALAS                         |           |
|   | HAB V159 VUZ V417 MAYES V325 DALAS                         |           |
|   | MSL V325 DALAS   |           |
|   | DCU V541 GAD V325 DALAS                                    |           |
|   | RQZ BUNNI-STAR   |           |
|   | BNA V5 GQO BUNNI-STAR                                      |           |
|   | SYI V67 GQO BUNNI-STAR                                     |           |
|   | BWG V243 GQO BUNNI-STAR                                    |           |
|   | LVT V51 HCH V333 GQO BUNNI-STAR<br>HYK V333 GQO BUNNI-STAR |           |
| SPECIAL LOW                                       | ALTITUDE DIRECTIONAL ROUTES                                |           |
|   |  | Effective |
|   |  | Times     |
|   | Route  | (UTC)     |
| Low Altitude IFR routes for traffic overflying th |  | (010)     |
| · -   | PSK V37 CAE (90 and 100 only)                              | 4400 0000 |
|   |  | 1100-0300 |
|   | SPA V54 LOCAS (90 and 100 only)                            | 1100-0300 |
|   | GRD V66 SDZ (30-100 only)                                  | 1100-0300 |
| Low Altitude IFR single-direction routes for tra  | , , ,  |           |
| Southbound  | RMG V154 MCN (70 MSL)                                      | 1100-0300 |
| Northbound  | MCN LOGEN NELLO (70 MSL, RNAV)                             | 1100-0300 |
|   | HIGH ALTITUDE  |           |
|   |  | Effective |
|   | _  | Times     |
| Terminals   | Route  | (UTC)     |
| ATLANTA (ATL)                                     |  |           |
| Austin (AUS)                                      | WEONE J239 MEI AEX LFK                                     | 1100-0300 |
| Baltimore (BWI)                                   | EAONE SPA J14 RIC OTT-STAR                                 | 1100-0300 |
| Boca Raton (BCT)                                  | (GPS or DME/DME-IRU equipped) BRAVS                        |           |
|   | (RNAV)-DP WALET OTK PRRIE (RNAV)-STAR                      | 1100-0300 |
| Boston (BOS)                                      | EATWO GRD J209 RDU J207 FKN J79 JFK                        |           |
|   | ORW-STAR   | 1100-0300 |
| Chicago Midway (MDW)                              | (/E/G/R/S/L/Q only) NOONE J89 IIU OKK FISSK                |           |

(RNAV)-STAR....

(Non-Advanced RNAV only) NOONE J89 IIU OKK V285 CLEFT OXI CGT .....

1100-0300

1100-0300

| Terminals   | Route  | Effective<br>Times<br>(UTC)                      |
|---|--|--|
| Chicago O'Hare (ORD)  | (non-Advanced RNAV only) CADIT GLAZR HOPAP<br>VOSTK HEVAN MZZ MZZ344/33 OXI<br>KNOX-STAR   | 1100-0300  |
|   | or (/E/G/R/J/L/Q only) CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO (RNAV)-STAR or  | 1100-0300  |
| Cincinnati (CVG)<br>Charlotte (CLT)<br>Cleveland (CLE)                                | J89 IIU MZZ OXI  NOTWO J43 VXV HARDU-STAR.  GRD ADENA (RNAV-STAR)  SUMMT (RNAV)-DP VXV J91 BULEY J91 HNN TVT  KEATN-STAR.  | 1100-0300<br>1100-0300                           |
| Columbus (CMH)  Denver (DEN)  | NOTWO J43 VXV J91 HNN BREMN-STAR<br>WETWO VUZ J41 MEM RZC PER GCK J154 RYLIE   | 1100-0300  |
| Detroit/Wayne (DTW)   | DANDD-STAR<br>SUMMT (RNAV)-DP VXV J91 HNN WEEDA-STAR<br>SOONE J89 HITTR PIE FORTL-STAR   | 1100-0300<br>1100-0300                           |
| Tott Lauderdale (LL)  | or<br>(GPS or DME/DME-IRU equipped) BRAVS  | 1100-0300  |
| Fort Myers (FMY and RSW)  | (RNAV)-DP WALET OTK JINGL (RNAV)-STAR<br>(Turbojets-GPS or DME/DME-IRU equipped)<br>THRSR (RNAV)-DP LUCKK SZW TYNEE  | 1100-0300  |
| Gainesville (GNV)<br>Houston (HOU)  | (RNAV)-STARSOONE J89 OTK(DME/DME-IRU or GPS-equipped) JAMMR AEX  | 1100-0300<br>1100-0300                           |
| Houston (IAH)   | ROKIT (RNAV)-STAR  |  |
| Kennedy (JFK)<br>La Guardia (LGA)<br>Louisville (SDF)<br>Marco Island (MKY)           | JAMMR AEX TXMEX (RNAV)—STAR  EATWO GRD J209 ORF J121 SIE CAMRN—STAR  EAONE AHN J208 HPW J191 PXT KORRY—STAR  NOONE HCH DARBY—STAR  SOTWO J43 SZW PIKKR (RNAV)—STAR | 1100-0300<br>1100-0300<br>1100-0300              |
| Miami (MIA)   | SOONE J89 J75 TEPEE ZEILR-STAR(all others) SOTWO SZW J43 PIE CYY-STAR  | 1100-0300  |
| Minneapolis (MSP)<br>Naples (APF)   | (Turbojets-GPS or DME/DME equipped) THRSR<br>(RNAV)-DP LUCKK SZW SSCOT (RNAV)-STAR<br>NOONE J89 IIU J89 BAE EAU-STAR<br>SOTWO J43 SZW PIKKR (RNAV)-STAR            | 1100-0300<br>1100-0300                           |
| Newark (EWR)  | GSO J14 J51 FAK DYLIN-STARor  (GPS or DME/DME-IRU equipped) GSO J14 J51  | 1100-0200  |
| Orlando (MCO)   | FAK PHLBO (RNAV)-STAR<br>SOONE J89 OTK LEESE-STAR<br>or  | 1100-0200<br>1100-0300                           |
| Orlando (ORL)   | (GPS or DME/DME-IRU equipped) SOONE J89 OTK PIGLT (RNAV)-STAR(GPS or DME/DME-IRU equipped) SOONE J89 OTK PIGLT (RNAV)-STAR   | 1100-0400<br>1100-0400                           |
| Philadelphia (PHL)<br>Raleigh-Durham (RDU)<br>Sarasota/Bradenton (SRQ)<br>Tampa (TPA) | EAONE SPA J14 J51 FAK DPNT-STAR<br>EATWO IRQ CAE BUZZY-STAR<br>J43 SZW CLAMP-STAR<br>SOTWO J43 SZW DARBS-STAR  | 1100-0300<br>1100-0300<br>1100-0300<br>1100-0300 |
| Teterboro (TEB)   | or (GPS or DME/DME–IRU equipped) SOTWO J43 SZW FOXXX (RNAV)–STAR   | 1100-0300<br>1100-0300                           |
|   | JAIKE-STAR<br>or<br>(Non-Advanced Nav Only) EAONE SPA J14 J51<br>FAK BRV AML J227 J49 J70 LVZ LVZ-STAR   | 1100-0300  |

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**Effective** 

| Washington Natl (DCA)   |                        |
|---|------------------------|
| or  | 1100-0300              |
| EAONE SPA J14 RIC IRONS-STAR  | 4400 0200              |
| Windsor Locks (BDL) EATWO GRD J209 RDU J207 FKN J79 JFK DPK   | 1100-0300<br>1100-0300 |
| AUGUSTA (AGS)  Kennedy (JFK) GRD J209 ORF J121 SIE CAMRN-STAR BIRMINGHAM (BHM)  | 1100 0000              |
| Baltimore (BWI)   |                        |
| or  | 1100-0300              |
|   | 1100-0300<br>0000-2359 |
| BNA CCT VHP FWA MIZAR-STAR  Houston (HOU)(DME/DME-IRU or GPS-equipped) MEI AEX ROKIT  (RNAV)-STAR                             |                        |
| (Non-advanced NAV only) MEI AEX DAS-STAR Houston (IAH)  |                        |
| (Non-advanced NAV only) MEI AEX DAS-STAR  Washington Dulles (IAD)   |                        |
| (GPS or DME/DME-IRU equipped) ATL J014 RIC OJAAY (RNAV)-STAR CHARLESTON (CHS)   |                        |
| Baltimore (BWI)   | 1100-0400              |
| RIC RAVNN (RNAV)-STAR   | 1100-0400              |
| or (Non-advanced NAV only) MGM J37 SJI AEX DAS-STAR Houston (IAH) (DME/DME-IRU or GPS-equipped) MGM J37 SJI WOLDE (RNAV)-STAR |                        |
| or (Non-advanced NAV only) MGM J37 SJI AEX DAS-STAR Philadelphia (PHL)  | 1100-0400              |
| (GPS or DME/DME-IRU equipped) J55 FLO J207 RDU FAK BARIN-STAR  CHARLOTTE (CLT) Baltimore (BWI)                                | 1100-0300              |
| or<br>(GPS or DME/DME-IRU equipped) MERIL RDU   | 1100-0300              |
| Boston (BOS) MERIL RDU J207 FKN J79 JFK ORW-STAR  | 1100-0300              |

| Chicago O'Hare (ORD)   | <b>F</b> erminals       | Route  | Effective<br>Times<br>(UTC) |
|--|-------------------------|--|-----------------------------|
| Chicago O'Hare (ORD).  (F.G/R/J.//_O only) SADIE FLM HEVAN MZZ ROYKO (RNAV)-STAR   |                         |  | 1100-030                    |
| (Inon-advanced RNAV only) SADIE FLM HEVAN MZZ MZZ3A4/33 OXI NAVO,-STAR   | Chicago O'Hare (ORD)    | (/E/G/R/J/L/Q only) SADIE FLM HEVAN MZZ  | 1100-030                    |
| Denver (DEN).  | Cincinnati (CVG)        | (non-advanced RNAV only) SADIE FLM HEVAN MZZ MZZ344/33 OXI KNOX-STAR             | 1100-030                    |
| Denver (DEN).  |                         | or   |                             |
| Detroit, Wayne (DTW).  | Denver (DEN)            | HARAY SPA SPA270 VXV125 VXV BNA FAM J112   |                             |
| (DME/DME-RU or GPS-equipped) AHN ATL J14   |                         | HUGO-DP ROBAY BKW GEMNI-STAR<br>(DME/DME-IRU or GPS-equipped) AHN MGM J37        | 1100-030                    |
| (Non-advanced NAV only) AHN ATL J14 VUZ AEX DAS—STAR or (DME/DME—IRU or GPS equipped) AHN MGM J37 SJI Columbia (RNAV)—STAR (Turbojets—DME/DME—IRU or GPS—equipped) AHN ATL J14 VUZ AEX TMEX (RNAV)—STAR (Turbojets—DME/DME—IRU or GPS—equipped) AHN ATL J14 VUZ AEX TMEX (RNAV)—STAR (Non-advanced NAV only) AHN ATL J14 VUZ AEX DAS—STAR (Non-advanced NAV only) AHN ATL J14 VUZ AEX DAS—STAR (MERIL RDU J209 ORF J121 SIE CAMRN—STAR LA GUARDÍA (LGA) (MERIL RDU J255 PHW J191 PXT KORRY—STAR 1100—03 NEWARK (EWR) (GPS or DME/DME—IRU equipped) RDU FAK PHLBO (RNAV)—STAR 1100—03 Or (GPS or DME/DME—IRU equipped) RDU FAK PHLBO (RNAV)—STAR 1100—03 Philadelphia (PHL) (MERIL RDU TYI CYI V1 DRONE 1100—03 Philadelphia (PHL) (MERIL RDU LVI CYI DRONE 1100—04 MERIL RDU LVI CYI DRONE 1100—05 Or (Non-Advanced Nav Only) MERIL RDU FAK BRV AML J227 J49 J70 LVZ LVZ—STAR 1100—03 Washington Dulles (IAD) (MERIL RDU SER IFAK DAT—STAR 1100—03 Washington Natl (DCA) (MERIL RDU J52 RIC IRONS—STAR 1100—03 Washington Natl (DCA) (MERIL RDU J52 RIC IRONS—STAR 1100—03 Or (GPS or DME/DME—IRU equipped) MERIL RDU J52 RIC IRONS—STAR 1100—03 Or (GPS or DME/DME—IRU equipped) MERIL RDU J52 RIC IRONS—STAR 1100—03 Or (GPS or DME/DME—IRU equipped) MERIL RDU J52 RIC IRONS—STAR 1100—03 Or (GPS or DME/DME—IRU equipped) MERIL RDU J52 RIC IRONS—STAR 1100—03 Or (GPS or DME/DME—IRU equipped) MERIL RDU J52 RIC IRONS—STAR 1100—03 Or (RNAV)—STAR 11 |                         | (DME/DME-IRU or GPS-equipped) AHN ATL J14<br>VUZ AEX ROKIT (RNAV)-STAR           |                             |
| Houston (IAH)  |                         | (Non-advanced NAV only) AHN ATL J14 VUZ AEX<br>DAS-STAR                          |                             |
| Houston (IAH)  |                         |  |                             |
| DAS-STAR   MERIL RDU J209 ORF J121 SIE CAMRN-STAR   La Guardia (LGA)   MERIL RDU J209 ORF J121 SIE CAMRN-STAR   1100-03   Louisville (LOU)   SADIE LOZ V310 IIU   1100-03   1100-03   Newark (EWR)   RDU FAK DYLIN-STAR   1100-03   or (GPS or DME/DME-IRU equipped) RDU FAK   PHLBO (RNAV)-STAR   1100-03   Or (GPS or DME/DME-IRU equipped) RDU FAK   PHLBO (RNAV)-STAR   1100-03   Or (GPS or DME/DME-IRU equipped) RDU FAK   PHLBO (RNAV)-STAR   1100-03   Or (GPS or DME/DME-IRU equipped) RDU FAK   PHLBO (RNAV)-STAR   1100-03   Or (RNAV)-STAR   | Houston (IAH)           | (Turbojets-DME/DME-IRU or GPS-equipped) AHN<br>ATL J14 VUZ AEX TXMEX (RNAV)-STAR |                             |
| La Guardia (LGA)   |                         | (Non-advanced NAV only) AHN ATL J14 VUZ AEX                                      |                             |
| Newark (EWR)   RDU FAK DYLIN-STAR   1100-03 or (GPS or DME/DME-IRU equipped) RDU FAK   PHLBO (RNAV)-STAR   1100-03   1100-03   1100-03   1100-03   1100-03   1100-03   1100-03   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-04   1100-05   | La Guardia (LGA)        | MERIL RDU J55 HPW J191 PXT KORRY-STAR  | 1100-030                    |
| GPS or DME/DME-IRU equipped) RDU FAK   |                         | RDU FAK DYLIN-STAR   | 1100-030<br>1100-030        |
| Norfolk (ORF)  |                         | (GPS or DME/DME-IRU equipped) RDU FAK  | 4400.00                     |
| Philadelphia (PHL)   | Norfolk (ORF)           |  |                             |
| Canal  | Philadelphia (PHL)      | MERIL RDU248 J51 FAK DPNT-STAR   | 1100-04                     |
| (Non-Advanced Nav Only) MERIL RDU FAK BRV  |                         | (Advanced Nav Only) MERIL RDU FAK JAIKE-STAR                                     | 1100-03                     |
| Washington Dulles (IAD).         MERIL RDU248 J51 FAK COATT-STAR   |                         | (Non-Advanced Nav Only) MERIL RDU FAK BRV  | 4400.00                     |
| Washington Natl (DCA).         MERIL RDU J52 RIC IRONS-STAR  | Washington Dulles (IAD) |  |                             |
| (GPS or DME/DME-IRU equipped) MERIL RDU  J52 OJAAY (RNAV)-STAR   |                         | MERIL RDU J52 RIC IRONS-STAR   | 1100 00                     |
| ### Windsor Locks (BDL)  ### MERIL RDU J207 FKN J79 JFK DPK DPK-STAR  #### CHATTANOOGA (CHA)  Chicago O'Hare (ORD)  ### (/E/G/R/J/L/Q only) GLAZR HOPAP VOSTK  ### HEVAN MZZ ROYKO (RNAV)—STAR   |                         | (GPS or DME/DME-IRU equipped) MERIL RDU  |                             |
| Chicago O'Hare (ORD)   | Windsor Locks (BDL)     |  |                             |
| HEVAN MZZ ROYKO (RNAV)—STAR  |                         | (/E/O/D/I/I/O I-) OLAZD HODAD VOOTI/   |                             |
| (non-advanced RNAV only) GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR 0000-23  CINCINNATI (CVG)  Albany (ALB)   | Chicago O'Hare (ORD)    | HEVAN MZZ ROYKO (RNAV)-STAR  | 0000-235                    |
| CRNAV only) ROCKT (RNAV)-DP ROCKT CADRE  |                         | (non-advanced RNAV only) GLAZR HOPAP VOSTK                                       | 0000-23!                    |
| AHTIY PSB  | CINCINNATI (CVG)        | ,  |                             |
| AHTIY JST HAR  | Albany (ALB)            |  |                             |
| Atlanta (ATL)  | Allentown (ABE)         |  |                             |
| (all others) BLUEGRASS-DP BWG ROME-STAR           Baltimore (BWI)         V128 YRK HVQ J8 CSN OTT-STAR   | Atlanta (ATL)           | (RNAV only) BLUEGRASS-DP BWG ERLIN<br>(RNAV)-STAR                                |                             |
|  | Poltimore (PWI)         | (all others) BLUEGRASS-DP BWG ROME-STAR  |                             |
|  | Balumore (BWI)          | -  |                             |

Effective

| Terminals                            | Route  | Times<br>(UTC) |
|--------------------------------------|--|----------------|
|                                      | (GPS or DME/DME-IRU equipped) V128 YRK HVQ                                   | (/             |
|                                      | J8 CSN RAVNN (RNAV)-STAR   |                |
| Birmingham (BHM)<br>Boca Raton (BCT) | BLUEGRASS-DP TRFWA LVT SYI VUZ(GPS or DME/DME-IRU equipped)                  |                |
| Boca Raton (BCT)                     | BLUEGRASS-DP TRFWA NOTWO WALET HITTR   |                |
|                                      | LATHY PRRIE (RNAV)-STAR  |                |
|                                      | or   |                |
|                                      | (GPS or DME/DME-IRU equiped) BLUEGRASS-DP                                    |                |
| Boston (BOS)                         | HYK VXV J43 ATL J89 OTK PRRIE (RNAV)-STAR.                                   |                |
| Boston (BOS)                         | (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB HNK ALB GDM GARDNER-STAR   |                |
| Chicago O'Hare (ORD)                 | (Advanced NAV only) MIE MZZR ROYKO   |                |
|                                      | (RNAV)-STAR  |                |
|                                      | Or   |                |
|                                      | (Non-Advance Nav only) DQN FWA KNOX-STAR or                                  |                |
|                                      | DQN FWA WATSN (RNAV)-STAR  |                |
| Dallas/Ft. Worth (DFW)               | IIU PXV J131 LIT BYP   |                |
| Fort Lauderdale (FLL)                | (GPS or DME/DME-IRU equipped)  |                |
|                                      | BLUEGRASS-DP TRFWA NOTWO OTK JINGL<br>(RNAV)-STAR                            |                |
|                                      | or   |                |
|                                      | (all others) BLUEGRASS-DP HYK VXV J43 ATL J89                                |                |
| 5                                    | HITTR J75 FORTL-STAR   |                |
| Fort Myers (FMY)                     | (Turbojets-GPS or DME/DME-IRU equipped) HYK<br>VXV J43 SZW TYNEE (RNAV)-STAR |                |
| Fort Myers (RSW)                     | (GPS or DME/DME–IRU equipped) HYK VXV J43                                    |                |
| , , , , ,                            | SZW TYNEE (RNAV)-STAR  | 1100-0300      |
| Harrisburg (MDT)                     | (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE                                      |                |
| Houston (HOII)                       | AHTIY JST HAR  |                |
| Houston (HOU)                        | (GPS or DME/DME-IRU equiped) LIT J180 SWB<br>ROKIT (RNAV)-STAR               |                |
|                                      | or   |                |
|                                      | (Non-advanced NAV only) LIT J180 SWB   |                |
| Haveten (IAH)                        | DAS-STAR   |                |
| Houston (IAH)                        | (Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR       |                |
|                                      | or   |                |
|                                      | (Non-advanced NAV only) LIT J180 SWB   |                |
| Landan and CLAND                     | DAS-STAR   |                |
| Jackson (JAN)<br>La Guardia (LGA)    | BLUEGRASS-DP TRFWA LVT SYI VUZ JAN (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE   |                |
| 24 444.41 (24.1)                     | AHTIY PSB MILTON-STAR  | 1000-1800      |
| Manchester (MHT)                     | (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE                                      |                |
| Maran Jaland (MI/O/)                 | AHTIY PSB ALB EEN  |                |
| Marco Island (MKY)<br>Miami (MIA)    | HYK VXV J43 SZW PIKKR (RNAV)-STAR<br>(Turbojets-GPS or DME/DME-IRU equipped) |                |
|                                      | BLUEGRASS-DP TRFWA NOTWO SZW SSCOT   |                |
|                                      | (RNAV)-STAR  |                |
|                                      | Or   |                |
|                                      | (all others) BLUEGRASS-DP HYK VXV J43 ATL SZW J43 PIE CYY-STAR               |                |
| Mobile (MOB)                         | BLUEGRASS-DP TRFWA LVT SYI VUZ SJI   |                |
| Naples (APF)                         | HYK VXV J43 SZW PIKKR (RNAV)-STAR  |                |
| Newark (EWR)<br>Newburgh (SWF)       | ROD J29 J584 SLT FQM-STAR(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE             |                |
| Hombulgii (SWI )                     | AHTIY PSB J49 HNK DNY V483 FILPS   |                |
| New Orleans (MSY)                    | BLUEGRASS-DP TRFWA LVT SYI VUZ J22 MEI                                       |                |
|                                      | RYTHM-STAR   | 4406           |
| Orlando Executive (ORL)              | HYK VXV J99 IRQ J85 AMG LEESE-STAR   | 1100-0300      |
|                                      | (GPS or DME/DME-IRU equipped) HYK VXV J99                                    |                |
|                                      | IRQ J85 AMG SHEMP MTATA PIGLT  |                |
|                                      | (RNAV)-STAR  | 1100-0400      |
| Orlando Intl (MCO)                   | HYK VXV J99 IRQ J85 AMG LEESE-STAR   | 1100-0300      |

or

| Terminals                   | Route  | Effective<br>Times<br>(UTC) |
|-----------------------------|--|-----------------------------|
|                             | (GPS or DME/DME-IRU equipped) HYK VXV J99  | , ,                         |
| Philadelphia (PHL)          | IRQ J85 AMG BUGGZ (RNAV)-STAR(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE   | 1100-0400                   |
| Phoenix (PHX)               | AHTIY JST BUNTS-STARFAM J78 ABQ J18  |                             |
|                             | or   |                             |
| Portland (PWM)              | FAM J78 IRW J74 SJN J18(RNAV only) ROCKT (RNAV)-DP ROCKT CADRE   |                             |
| Providence (PVD)            | AHTIY PSB J49 ALB ENE (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE AHTIY PSB J49 HNK TEDDY-STAR   |                             |
| Sarasota/Bradenton (SRQ)    | HYK VXV J43 SZW CLAMP-STAR   |                             |
| Tampa (TPA)                 | or   |                             |
|                             | (GPS or DME/DME-IRU equipped) HYK VXV J43  |                             |
|                             | SZW FOXXX (RNAV)-STAR  |                             |
| Washington Dulles (IAD)     | V128 YRK HVQ ROYIL-STAR<br>or  |                             |
|                             | V128 YRK HVQ SHANON (RNAV)-STAR  |                             |
| Washington Natl (DCA)       | V128 YRK HVQ WZRRD-STAR<br>or  |                             |
|                             | V128 YRK HVQ ELDEE (RNAV)-STAR   |                             |
| West Palm Beach (PBI)       | (GPS or DME/DME-IRU equipped) BLUEGRASS-DP TRFWA NOTWO OTK WLACE   |                             |
|                             | or   |                             |
|                             | (GPS or DME/DME-IRU equipped) BLUEGRASS-DP HYK VXV J43 ATL J89 OTK   |                             |
|                             | WLACE  |                             |
| Wilkes Barre/Scranton (AVP) | (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE ANTIY PSB LVZ  |                             |
| Windsor Locks (BDL)         | (RNAV only) ROCKT (RNAV)-DP ROCKT CADRE  |                             |
| ,                           | AHTIY PSB RKA SWEDE SWEDE-STAR   |                             |
| DAYTONA BEACH (DAB)         |  |                             |
| Charlotte (CLT)             | CRG J51 SAV J207 FLO CTF-STARor  |                             |
|                             | (Turbojets-GPS or DME/DME-IRU equipped) CRG J51 SAV HUSTN (RNAV)-STAR  |                             |
| FORT LAUDERDALE METRO AREA  |  |                             |
| (FLL, FXE, PMP)             |  |                             |
| Albany (ALB)                | (Water–Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 JOANI LGA LGA055 TRUDE   |                             |
| ANIA- (ATI)                 | V487 CANAN V130  | 1000 0000                   |
| Atlanta (ATL)               | J20 ORL J81 CHESN SINCA-STAR   | 1000-0300                   |
|                             | (RNAV only) J20 ORL J81 CHESN CANUK (RNAV) -STAR   | 1000-0300                   |
| Baltimore (BWI)             | (at or below 310) J20 ORL J53 CRG J51 SAV J55  |                             |
|                             | CHS J165 RIC OTT-STAR  | 1000-0300                   |
|                             | (Water-Turbojets) ZAPPA PERMT AR16 ILM J40<br>RIC OTT-STAR   | 1000-0300                   |
|                             | or   |                             |
|                             | (at or above 330) J113 CRG J51 SAV J55 CHS<br>J165 RIC OTT-STAR  | 1000-0300                   |
|                             | or   |                             |
|                             | (GPS or DME/DME-IRU equipped) (at or below<br>310) J20 ORL J53 CRG J51 SAV J55 CHS J165  |                             |
|                             | RIC RAVNN (RNAV)-STAR  | 1000-0300                   |
|                             | (GPS or DME/DME-IRU equipped) (at or above   |                             |
|                             | 330) J113 CRG J151 SAV J55 CHS J165 RIC  |                             |
|                             | RAVNN (RNAV)-STAR  | 1000-0300                   |
|                             | Or<br>(Water Turksists CDC or DMF (DMF ID))  |                             |
|                             | (Water-Turbojets-GPS or DME/DME-IRU equipped) ZAPPA PERMT AR16 ILM J40 RIC   |                             |
|                             | RAVNN (RNAV)-STAR  | 1000-0300                   |
|                             | INTERNATIONAL CONTRACTOR CONTRACT | 1000-0300                   |

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**Effective** 

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| Torminala                | Pouto  | Times     |
| Terminals  Bedford (BED) | Route (Water-Turbojets) ZAPPA PERMT AR16 ILM   | (UTC)     |
| bedioid (bEb)            | KEMPR SBY J79 JFK DPK MAD HFD  |           |
|                          | GRAYM-STAR   |           |
|                          | or   |           |
|                          | (Water-Turbojets) (Alternate) ZAPPA WOLFO AR18   |           |
|                          | DIW WETRO CEBEE SWL J174 HTO ORW   |           |
|                          | GRAYM-STAR   |           |
| Beverly (BVY)            | (Water-Turbojets) ZAPPA PERMT AR16 ILM   |           |
|                          | KEMPR SBY J79 JFK DPK MAD HFD  |           |
|                          | GRAYM-STAR   |           |
|                          | or   |           |
|                          | (Water-Turbojets) (Alternate) ZAPPA WOLFO AR18   |           |
|                          | DIW WETRO CEBEE SWL J174 HTO ORW   |           |
| Boston (BOS)             | GRAYM-STAR(Water-Turbojets) ZAPPA PERMT AR16 ILM                                       |           |
| B03(011 (B00)            | KEMPR SBY J79 JFK ORW-STAR   | 1000-0300 |
|                          | or   | 1000 0000 |
|                          | (at or below 290) J20 ORL J53 CRG J51 SAV J55  |           |
|                          | CHS J79 JFK ORW-STAR   | 1000-0300 |
|                          | or   |           |
|                          | (at or above 330) J113 CRG J51 SAV J55 CHS   |           |
|                          | J79 JFK ORW-STAR   | 1000-0300 |
| Bridgeport (BDR)         | (Water-Turbojets) ZAPPA WOLFO AR18 DIW   |           |
|                          | WETRO CEBEE SWL J121 SIE V139 RICED  |           |
| Charlotte (CLT)          | MAD193 KEYED(at or below 290) J20 ORL J53 CRG J51 SAV                                  |           |
| Ondriotte (OLT)          | J207 FLO CTF-STAR  | 1000-0300 |
|                          | or   | 1000 0000 |
|                          | (at or above 330) J113 CRG J51 SAV J207 FLO  |           |
|                          | CTF-STAR   | 1000-0300 |
|                          | or   |           |
|                          | (at or above 330–Turbojets–GPS or  |           |
|                          | DME/DME-IRU equipped) J113 CRG J51 SAV   | 4000 0000 |
|                          | HUSTN (RNAV)-STAR  | 1000-0300 |
|                          | or<br>(at or below 290-Turbojets-GPS or  |           |
|                          | DME/DME-IRU equipped) J20 ORL J53 CRG  |           |
|                          | J51 SAV HUSTN (RNAV)-STAR  | 1000-0300 |
| Chicago Midway (MDW)     | (/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK  |           |
|                          | FISSK (RNAV)-STAR  | 1000-0300 |
|                          | or   |           |
|                          | (non-advanced RNAV only) CTY J91 ATL J89 IIU   |           |
| Obligate Olliera (ODD)   | OKK V285 CLEFT OXI CGT   | 1000-0300 |
| Chicago O'Hare (ORD)     | (/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT  |           |
|                          | GLAZR HOPAP VOSTK HEVAN MZZ ROYKO  | 1000-0300 |
|                          | (RNAV)-STAR  | 1000-0300 |
|                          | (non-advanced RNAV only) LAL CTY J91 ATL   |           |
|                          | CADIT GLAZR HOPAP VOSTK HEVAN MZZ  |           |
|                          | MZZ344/33 OXI KNOX-STAR  | 1000-0300 |
|                          | (RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR  |           |
| Cincinnati (CVG)         | (all others) CTY J91 VXV HARDU-STAR  | 1000-0300 |
|                          | Of (DNAM) and OTY IOA MAY TAKE (DNAM) CTAD   |           |
| Cleveland (CLE)          | (RNAV) only) CTY J91 VXV JAKIE (RNAV)-STAR<br>J20 ORL J53 IRQ J85 HVQ J85 TVT040 KEATN |           |
| olevelana (OLE)          | KEATN-STAR   | 1000-0300 |
| Columbus (CMH)           | J20 ORL J81 IRQ J53 SPA J85 HVQ HNN  | 1000 0000 |
| ,                        | BREMN-STAR   | 1000-0300 |
| Cross City (CTY)         | J85 LLAKE CTY  | 1030-0300 |
|                          | or   |           |
| 5 H (5 + W H (5 5 H)     | CTY  | 4000 05   |
| Dallas/Fort Worth (DFW)  | LAL J73 SZW J2 CEW J50 AEX CQY   | 1000-0300 |
|                          | or<br>SRQ Q100 REDFN Q105 HRV J58 AEX CQY  | 1000-0300 |
|                          | 21/6 6100 HEDLIA 6102 HEA 120 MEV OG 1   | 1000-0300 |

| Terminals                                      | Route  | Effective<br>Times<br>(UTC) |
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| Danbury (DXR)                                  | (Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR                                    | (0.0)                       |
| Daytona Beach (DAB)<br>Denver (DEN)            | J20 LLNCH MLB V3<br>LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE   | 1030-0300                   |
|  | DANDD-STARor<br>or<br>SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA   | 1030-0300                   |
| Detroit/Wayne (DTW)                            | QUAIL-STAR<br>J20 ORL J53 SPA HNN WEEDA-STAR   | 1030-0300                   |
| Ann Arbor (ARB)                                | J20 ORL J81 IRQ J99 VXV J43 FLM DQN CRUXX-STAR   |                             |
| Pontiac (PTK), Windsor (CYQG) Willow Run (YIP) | J20 ORL J81 IRQ J85 DJB LLEEO-STAR<br>J20 ORL J81 IRQ J99 VXV J43 FLM DQN  |                             |
| V (755)  | CRUXX-STAR   | 1000-0300                   |
| Young (DET)<br>East Hampton (HTO)              | J20 ORL J81 IRQ J85 DJB LLEEO-STAR<br>(Water-Turbojets) ZAPPA WOLFO AR18 DIW<br>WETRO CEBEE SWL J121                     | 1000-0300                   |
| Farmingdale (FRG)                              | (Water) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR   |                             |
| Gainesville (GNV)                              | J85 LLAKE LAL GNV or LAL GNV<br>(Water–Turbojets) ZAPPA WOLFO AR18 DIW<br>WETRO CEBEE SWL J121 HTO                       | 1030-0300                   |
| Hartford (HFD)                                 | (Water-Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 JFK DPK MAD V1   |                             |
| Houston (IAH)                                  | (GPS or DME/DME-IRU equipped) SRQ Q100 LEV<br>WOLDE (RNAV)-STAR  | 1000-0300                   |
|  | (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)-STAR or  | 1000-0300                   |
| Houston (HOU)                                  | (Non-advanced NAV only) LAL J73 SZW J2 CEW-030 J50 AEX DAS-STAR(GPS or DME/DME-IRU equipped) SRQ Q100 LEV                | 1000-0300                   |
| Houston (Hoo)                                  | COLUMBIA (RNAV)-STAR   | 1000-0300                   |
|  | (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)-STAR or   | 1000-0300                   |
|  | (Non-advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS-STAR  |                             |
| Indianapolis (IND)                             | CTY J91 ATL J89 IIU DECEE–STAR(Water–Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SARDI CCC                      | 1000-0300                   |
| Jacksonville (CRG)<br>Kennedy (JFK)            | J20 ORL J53(Water–Turbojets) ZAPPA WOLFO AR18 WETRO  | 1030-0300                   |
|  | CEBEE SWL J121 SIE CAMRN-STAR  | 1000-0300                   |
|  | (at or below 290) J20 ORL J53 CRG J51 SAV J55<br>CHS J121 SIE CAMRN-STARor   | 1000-0300                   |
|  | (at or above 330) J113 CRG J51 SAV J55 CHS<br>J121 SIE CAMRN-STAR  | 1000-0300                   |
| La Guardia (LGA)                               | (Water-Turbojets) ZAPPA PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY-STAR or  | 1000-0300                   |
|  | (at or below 290) J20 ORL J53 CRG J51 SAV<br>J207 RDU J55 HPW J191 PXT KORRY-STAR<br>or                                  | 1000-0300                   |
| Lawrence (LWM)                                 | (at or above 330) J113 CRG J51 SAV J207 RDU<br>J55 HPW J191 PXT KORRY-STAR(Water-Turbojets) (Alternate) ZAPPA WOLFO AR18 | 1000-0300                   |
|  | DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR  |                             |

| Terminals                            | Route   | Effective<br>Times<br>(UTC) |
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| Terminas                             | (Water-Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 JFK DPK MAD HFD   | (010)                       |
| Louisville (SDF)                     | GRAYM-STAR<br>CTY J91 ATL HCH DARBY-STAR  | 1000-0300                   |
| Manchester (MHT)                     | (Water–Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 JFK ALB EEN   | 1000 0000                   |
| Melbourne (MLB)                      | J20 LLNCH MLB   | 1030-0300                   |
| Minneapolis (MSP)<br>Montreal (CYUL) | CTY J91 ATL J89 BAE EAU-STAR (Water-Turbojets) ZAPPA PERMT AR16 ILM KEMPR SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR | 1000-0300                   |
| Nantucket (ACK)                      | (Water-Turbojets) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO V46   |                             |
| Nashville (BNA)                      | CTY J91 ATL GQO VOLLS-STAR(Water-Turbojets) ZAPPA PERMT AR16 ILM J109   | 1000-0300                   |
|                                      | FAK DYLIN-STAR  | 1000-0300                   |
|                                      | (at or below 310) J20 ORL J53 CRG J51 SAV<br>J207 FLO J55 J51 FAK DYLIN-STAR                                    | 1000-0300                   |
|                                      | (at or above 330) J113 CRG J51 SAV J207 FLO   |                             |
|                                      | J55 J51 FAK DYLIN-STAR  | 1000-0300                   |
|                                      | (GPS or DME/DME-IRU equipped-at or above<br>330) J113 CRG J51 SAV J207 FLO J55 J51 FAK                          |                             |
|                                      | PHLBO (RNAV)-STAR   | 1000-0300                   |
|                                      | or<br>(GPS or DME/DME-IRU equipped-at or below  |                             |
|                                      | 310) J20 ORL J53 CRG J51 SAV J207 FLO J55<br>J51 FAK PHLBO (RNAV)-STAR<br>or                                    | 1000-0300                   |
|                                      | (GPS or DME/DME-IRU equipped) ZAPPA PERMT<br>AR16 ILM J109 FAK PHLBO (RNAV)-STAR                                | 1000-0300                   |
| Newburgh (SWF)                       | (Water-Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 JFK DPK HUDSON-STAR                                     |                             |
| New Haven (HVN)                      | (Water-Turbojets) ZAPPA WOLFO AR18 DIW<br>WETRO CEBEE SWL J121 SIE V139 RICED                                   |                             |
| New Orleans (MSY)                    | MAD193 KEYED  | 1000-0300                   |
| Ocala (OCF)                          | J85 LLAKE LAL   | 1000-0300<br>1030-0300      |
| ocaia (oor)                          | or  |                             |
| Orlando (MCO)                        | J20 LLNCH GOOFY-STAR  | 1030-0300<br>1030-0300      |
| Overwater Routes to the Northeast    | (Water-Turbojets) ZAPPA WOLFO AR18 DIW  | 1030-0300                   |
| Overwater Routes to the Northwest    | LBV J616or  | 1030-0300                   |
| Philadelphia (PHL)                   | LBV J616 SRQ Q100 REDFN Q105 HRV J58<br>J20 ORL J53 CRG J51 SAV J55 CHS J121 SWL                                | 1030-0300                   |
|                                      | SWL034 RADDS CEDAR LAKE-STAR<br>or  | 1000-0300                   |
|                                      | (Water-Turbojets) ZAPPA WOLFO AR18 DIW<br>WETRO CEBEE SWL RADDS CEDAR LAKE-STAR                                 | 1000-0300                   |
| Pittsburgh (PIT)                     | (at or below 290) J20 ORL J53 CRG J51 CAE PSK<br>EKN IHD NESTO-STAR   | 1000-0300                   |
|                                      | or<br>(at or above 330) J113 CRG J51 CAE PSK EKN  |                             |
| Poughkeepsie (POU)                   | IHD NESTO-STAR<br>(Water-Turbojets) ZAPPA PERMT AR16 ILM  | 1000-0300                   |
| Providence (PVD)                     | KEMPR SBY J79 JFK DPK HUDSON-STAR<br>(Water-Turbojets) ZAPPA WOLFO AR18 DIW<br>WETRO CEBEE SWL J174 HTO JORDN   |                             |
| Raleigh-Durham (RDU)                 | (RNAV)-STAR(at or below 290) J20 ORL J53 CRG J51 SAV J55  |                             |
|                                      | CHS J174 ILM BRADE-STAR   | 1000-0300                   |

| Terminals                  | Route  | Effective<br>Times<br>(UTC) |
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|                            | or   |                             |
|                            | (at or above 330) J113 CRG J51 SAV J55 CHS<br>J174 ILM BRADE-STAR                  | 1000-0300                   |
|                            | (Water-Turbojets) ZAPPA PERMT AR16 ILM   |                             |
| St Louis (STL)             | BRADE-STAR THNDR CTY J151 VISQA QBALL-STAR or                                      | 1000-0300                   |
|                            | (/E, /G, /R, /J, /L, /Q) THNDR KPASA Q110  |                             |
|                            | FEONA VUZ J151 VISQA QBALL-STAR  |                             |
| Sarasota/Bradenton (SRQ)   | LBV J43 ROGAN  | 1030-0300                   |
|                            | or   | 4000 0000                   |
| Springfield/Chicopee (CEF) | ROGAN(Water-Turbojets) ZAPPA PERMT AR16 ILM  | 1030-0300                   |
| Springheid/Chicopee (CEF)  | KEMPR SBY J79 VILLS DPK DEER PARK-STAR   |                             |
| Tallahassee (TLH)          | J85 LLAKE LAL SZW  | 1030-0300                   |
| rananassee (TEII)          | or   | 1030-0300                   |
|                            | LAL  | 1030-0300                   |
| Tampa (TPA)                | J85 THNDR LBV BRDGE-STAR   | 1030-0300                   |
|                            | or   |                             |
|                            | BRDGE BRDGE-STARor   | 1030-0300                   |
|                            | (GPS or DME/DME-IRU equipped) DEAKK DEAKK  |                             |
|                            | (RNAV)-STAR  | 1030-0300                   |
|                            | Or   |                             |
|                            | (GPS or DME/DME-IRU equipped) J85 THNDR  | 4000 0000                   |
| Toronto (CYYZ)             | LBV DEAKK (RNAV)-STAR(Water-Turbojets) ZAPPA PERMT AR16 ILM J109                   | 1030-0300                   |
|                            | BUF YOUTH-STAR   |                             |
| Vero Beach (VRB)           | J20 ARKES VRB  | 1030-0300                   |
| Washington Dulles (IAD)    | (at or below 310) J20 ORL J53 CRG J51 SAV  |                             |
|                            | J207 RDU FAK COATT-STAR  | 1000-0300                   |
|                            | or   |                             |
|                            | (at or below 310–GPS or DME/DME–IRU  |                             |
|                            | equipped) J20 ORL J53 CRG J51 SAV J207   | 1000 0000                   |
|                            | RDU FAK BARIN-STAR(at or above 330-GPS or DME/DME-IRU                              | 1000-0300                   |
|                            | equipped) J113 CRG J51 SAV J207 RDU FAK  |                             |
|                            | BARIN-STAR   | 1000-0300                   |
|                            | or   | 1000-0300                   |
|                            | (at or above 330) J113 CRG J51 SAV J207 RDU  |                             |
|                            | FAK COATT-STAR   | 1000-0300                   |
|                            | or   |                             |
|                            | (Water) ZAPPA PERMT AR16 ILM J109 FAK  |                             |
|                            | COATT-STAR   | 1000-0300                   |
|                            | or   |                             |
|                            | (Water-GPS or DME/DME-IRU equipped) ZAPPA  |                             |
| Machineton Notl (DOA)      | PERMT AR16 ILM J109 FAK BARIN-STAR   | 1000-0300                   |
| Washington Natl (DCA)      | (at or below 310) J20 ORL J53 CRG J51 SAV J55                                      | 1000 0200                   |
|                            | CHS J165 RIC IRONS-STAR  | 1000-0300                   |
|                            | (at or above 330) J113 CRG J51 SAV J55 CHS   |                             |
|                            | J165 RIC IRONS-STAR  | 1000-0300                   |
|                            | or   |                             |
|                            | (Water-Turbojets) ZAPPA PERMT AR16 ILM J40   |                             |
|                            | RIC IRONS-STAR   | 1000-0300                   |
|                            | or   |                             |
|                            | (GPS or DME/DME–IRU equipped–at or below   |                             |
|                            | 310) J20 ORL J53 CRG J51 SAV J55 CHS J165  | 4000 00                     |
|                            | RIC OJAAY (RNAV)-STAR  | 1000-0300                   |
|                            | Or<br>(GPS or DME/DME_IRII equipped_at or above                                    |                             |
|                            | (GPS or DME/DME-IRU equipped-at or above<br>330) J113 CRG J51 SAV J55 CHS J165 RIC |                             |
|                            | OJAAY (RNAV)-STAR  | 1000-0300                   |
|                            | or   |                             |
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**Effective** 

| Terminals  | Route  | Times<br>(UTC)         |
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|  | (Water-Turbojets-GPS or DME/DME-IRU equipped) ZAPPA PERMT AR16 ILM J40 RIC OJAAY (RNAV)-STAR | 1000-0300              |
| Westfield (BAF)                                    | (Water-Turbojets) ZAPPA PERMIT AR16 ILM KEMPR SBY J79 VILLS DPK DEER PARK-STAR               | 1000-0300              |
| Westhampton Beach (FOK)                            | (Water-Turbojets) ZAPPA WOLFO AR18 WETRO<br>CEBEE SWL J121 HTO                               |                        |
| White Plains (HPN)                                 | (Water-Turbojets) ZAPPA WOLFO AR18 DIW<br>WETRO CEBEE SWL J121 SIE BOUNO-STAR<br>or          |                        |
|  | (Water-Turboprops) ZAPPA WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR       |                        |
| Wilmington (ILM)                                   | (Water-Turbojets-Overwater Routes to the NE) ZAPPA PERMT AR16                                |                        |
| Windsor Locks (BDL)                                | (Water-Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 VILLS DPK DEER PARK-STAR             |                        |
| Worcester (ORH)                                    | (Water-Turbojets) ZAPPA PERMT AR16 ILM<br>KEMPR SBY J79 JFK DPK MAD HFD                      |                        |
| FORT MYERS METRO AREA<br>(RSW, FMY, APF, MKY, PGD) |  |                        |
| Daytona Beach (DAB)                                | ORL  | 1030-0300              |
| Gainesville (GNV)                                  | LAL(GPS or DME/DME-IRU equipped) SRQ Q100 LEV  | 1030-0300              |
| nouston (nou)                                      | COLUMBIA (RNAV)-STAR   | 1000-0300              |
|  | (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI COLUMBIA (RNAV)-STAR                        |                        |
|  | (Non-advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS-STAR                                  |                        |
| Houston (IAH)                                      | (GPS or DME/DME-IRU equipped) SRQ Q100 LEV WOLDE (RNAV)-STAR or                              | 1000-0300              |
|  | (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)-STAR                           | 1000-0300              |
|  | (Non-advanced NAV only) LAL J73 SZW J2 CEW   |                        |
|  | J50 AEX DAS-STAR   | 1000-0300              |
| Jacksonville (CRG)                                 | ORL J53(all others) CYY CYY-STAR   | 1030-0300<br>1030-0300 |
| WIGHT (WIA)  | or<br>(/E, /G, /R, /J, /L, /Q) CYY DEEDS   | 1030-0300              |
|  | (RNAV)-STAR  | 1030-0300              |
| Ocala (OCF)<br>Orlando (MCO)                       | LAL  LAL MINEE-STAR  or  | 1030-0300<br>1030-0300 |
|  | DOWNN MINEE-STARor   | 1030-0300              |
|  | LALor  | 1030-0300              |
|  | (Turbojets) ORLor  | 1030-0300              |
| Tallahaaaaa (TLH)                                  | (Turbojets) DOWNN MINEE-STAR   | 1030-0300              |
| Tallahassee (TLH)<br>Tampa (TPA)                   | LAL RSW BRDGE-STARor   | 1030-0300<br>1030-0300 |
|  | V7 ROGAN J43 PIEor   | 1030-0300              |
|  | (GPS or DME/DME-IRU equipped) DEAKK<br>(RNAV)-STAR   | 1030-0300              |
| Westbound destinations                             | SRQ Q100 LEV J86   |                        |
|  | BAGGS Q102 LEV J86or   |                        |

| Tamainala  | Posts  | Effective<br>Times     |
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| Terminals  | Route SRQ 100 REDFN Q105 HRV J58   | (UTC)                  |
| From PAGE FLD (FMY) only:<br>Cincinnati (CVG)  | (RNAV only) LAL CTY J91 VXV JAKIE (RNAV)-STAR  |                        |
| Cleveland Metro (CLE)  | (all others) LAL CTY J91 ATL VXV HARDU-STAR<br>LAL CTY J91 HNN TVT KEATN-STAR                    |                        |
| Columbus (CMH)   | LAL CTY J91 HNN BREMN-STARLAL CTY J91 VXV J43 FLM DQN MIZAR-STAR                                 |                        |
| Detroit Satellites: Ann Arbor (ARB), Willow Run (YIP) Pontiac (PTK), Windsor (CYQG), Young | LAL CTY J91 VXV J43 FLM DQN CRUXX-STAR   |                        |
| (DET)La Guardia (LGA)  | LAL J73 J119 TAY J85 DJB LLEEO-STAR<br>ORL J53 CRG J51 SAV J207 J55 HPW J191 PXT                 |                        |
| Miami (MIA)  | (Turbojets-GPS or DME/DME-IRU equipped) CYY  | 1100-0300              |
| Newark (EWR)   | SSCOT (RNAV)-STAR<br>ORL J53 CRG J51 FAK DYLIN-STAR  | 1100-0400              |
|  | (GPS or DME/DME-IRU equipped) ORL J53 CRG J51 FAK PHLBO(RNAV)-STAR                               | 1100-0400              |
| Washington Natl (DCA)  | ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS-STAR  | 1000-0300              |
| From SW FLORIDA INTL (RSW) only: Atlanta (ATL)   | RSW LAL J73 SZW LGC-STAR   | 1000-0300              |
| Atlanta (ATE)  | or<br>(RNAV only) RSW LAL J73 SZW HONIE  |                        |
| Chicago Midway (MDW)   | (RNAV)-STAR<br>(/E/G/R/J/L/Q only) RSW LAL CTY J91 ATL J89<br>IIU OKK FISSK (RNAV)-STAR          | 1000-0300<br>1000-0300 |
|  | or<br>(non-advanced RNAV only) RSW LAL CTY J91 ATL<br>J89 IIU OKK V285 CLEFT OXI CGT             | 1000-0300              |
| Chicago O'Hare (ORD)   | (/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT<br>GLAZR HOPAP VOSTK HEVAN MZZ ROYKO                   | 1000-0300              |
|  | (RNAV)-STAR or (non-advanced RNAV only) LAL CTY J91 ATL  | 1000-0300              |
| Cleveland (CLE)  | CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 KNOX-STARRSW LAL J73 J119 TAY J85 IRQ J85 HVQ J85    | 1000-0300              |
| Columbus (CMH)   | TVT040 KEATN KEATN-STAR  | 4000 0000              |
| Dallas/Ft. Worth (DFW)   | BREMN-STAR   | 1000-0300              |
| Denver (DEN)   | RSW LAL J73 SZW J2 CEW J50 AEX CQY<br>RSW SRQ Q100 REDFN Q105 HRV J58 SPS J168<br>LAA QUAIL-STAR | 1000-0300              |
|  | or RSW LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE DANDD-STAR                                     |                        |
| Detroit/Wayne (DTW) Detroit Satellites:  | JOCKS ORL J53 SPA HNN WEEDA-STAR   |                        |
| Ann Arbor (ARB), Willow Run (YIP)  Pontiac (PTK), Windsor (CYQG), Young (DET)              | LAL CTY J91 VXV J43 FLM DQN CRUXX-STAR  LAL J73 J119 TAY J85 DJB LLEEO-STAR                      |                        |
| Indianapolis (IND)   | RSW LAL CTY J91 ATL J89 IIU DECEE-STAR   |                        |
| Louisville (SDF)   | RSW LAL CTY J91 ATL HCH DARBY-STAR (Turbojets-GPS or DME/DME-IRU equipped) CYY SSCOT (RNAV)-STAR |                        |
| Minneapolis (MSP)  | RSW LAL CTY J91 ATL J89 BAE EAU-STAR   | 1000-0300              |
| Pittsburgh (PIT)   | RSW LAL CTY J91 ATL GQO VOLLS-STAR   | 1000-0300              |
| Raleigh-Durham (RDU)   | RSW ORL J53 CRG J51 SAV J55 CHS J174 ILM<br>BRADE-STAR   |                        |

| Terminals                            | Route  | Effective<br>Times<br>(UTC) |
|--------------------------------------|--|-----------------------------|
| St Louis (STL)                       | LAL J73 SZW J41 VUZ STL  | 1100-0300                   |
| Washington Dulles (IAD)              | RSW ORL J53 CRG J51 SAV J207 RDU FAK COATT-STARor                                  | 1000-0300                   |
|                                      | (GPS or DME/DME-IRU equipped) RSW ORL J53<br>CRG J51 SAV J207 RDU FAK BARIN-STAR   | 1000-0300                   |
| Wahington Natl (DCA)                 | RSW ORL J53 CRG J51 SAV J55 CHS J165 RIC IRONS-STARor                              | 1000-0300                   |
|                                      | (GPS or DME/DME-IRU equipped) RSW ORL J53<br>CRG J51 SAV J55 CHS J165 RIC OJAAY    | 1000 0000                   |
| GREENSBORO (GSO)                     | (RNAV)-STAR  | 1000-0300                   |
| Chicago Midway (MDW)                 | PSK HNN FWA GOSHEN-STAR  | 1100-0300                   |
| Chicago O'Hare (ORD)                 | PSK HVQ APE J178 FWA GOSHEN-STAR<br>(/E/G/R/J/L/Q only) BOTTM FLM HEVAN MZZ        | 1100-0300                   |
|                                      | ROYKO (RNAV)-STAR<br>or  | 1100-0300                   |
|                                      | (non-advanced RNAV only) BOTTM FLM HEVAN   |                             |
| Cincinnati (LUK)                     | MZZ MZZ344/33 OXI KNOX-STAR<br>PSK HVO FLM   | 1100-0300<br>0700-2300      |
| Detroit/Wayne (DTW)                  | BOTTM BKW GEMNI-STAR   | 0700-2300                   |
| La Guardia (LGA)                     | J14 PXT KORRY-STAR   |                             |
| Louisville (SDF)                     | VXV J99 GHATS EWO IIU  | 0700-2300                   |
| Newark (EWR)                         | J14 J51 FAK DYLIN-STARor   |                             |
|                                      | (GPS or DME/DME-IRU equipped) J14 J51 FAK<br>PHLBO (RNAV)-STAR                     |                             |
| GREER (GSP) Detroit/Wayne (DTW)      | SPA HMV HNN WEEDA-STAR   |                             |
| HUNTSVILLE (HSV)                     |  |                             |
| Chicago O'Hare (ORD)                 | MEM FTZ BDF BDF-STAR(RNAV only) BNA IMPEL VHP FWA MIZAR-STAR                       | 0000–2359                   |
|                                      | or<br>BNA CCT VHP FWA MIZAR-STAR   |                             |
| JACKSONVILLE METRO AREA (JAX)        |  |                             |
| Baltimore (BWI)                      | J51 SAV J55 CHS J79 TYI J40 RIC OTT-STAR<br>or                                     | 1100-0400                   |
|                                      | (GPS or DME/DME-IRU equipped) J51 SAV J55<br>CHS J79 TYI J40 RIC RAVNN (RNAV)-STAR | 1100-0400                   |
| Charlotte (CLT)                      | J53 IRQ UNARM-STARor   |                             |
|                                      | J51 SAV J207 FLO CTF-STARor  |                             |
|                                      | (Turbojets-GPS or DME/DME-IRU equipped) J51<br>SAV HUSTN (RNAV)-STAR               |                             |
|                                      | or<br>(Turbojets-GPS or DME/DME-IRU equipped) J53                                  |                             |
| Objects Officer (ODD)                | IRQ ADENA (RNAV)—STAR  |                             |
| Chicago O'Hare (ORD)                 | (/E/G/R/J/L/Q only) SAV CAE HMV FLM HEVAN MZZ ROYKO (RNAV)-STAR                    | 0000-2359                   |
|                                      | (non-advanced RNAV only) SAV CAE HMV FLM   |                             |
| Datasit Attacas (DTM)                | HEVAN MZZ MZZ344/33 OXI KNOX-STAR  | 0000–2359                   |
| Detroit/Wayne (DTW)<br>Houston (HOU) | NOWAY J53 SPA HNN WEEDA-STAR<br>(GPS or DME/DME-IRU equipped) TAY J2 SJI           |                             |
|                                      | COLUMBIA (RNAV)-STAR   |                             |
|                                      | (Non-advanced NAV only) TAY J2 CEW J50 AEX   |                             |
|                                      | DAS-STAR   |                             |
| Houston (IAH)                        | (GPS or DME/DME-IRU equipped) TAY J2 SJI<br>WOLDE (RNAV)-STAR                      |                             |
|                                      | or   |                             |

| Terminals  | Route  | Effective<br>Times     |
|--|--|------------------------|
| reminals   | (Non-advanced NAV only) TAY J2 CEW J50 AEX                                 | (UTC)                  |
| La Guardia (LGA)                                 | DAS-STAR<br>J51 SAV J207 RDU J55 HPW J191 PXT                              |                        |
| Newark (EWR)                                     | KORRY-STARCRG J51 FAK DYLIN-STAR   | 1100-0400              |
|  | or<br>(GPS or DME/DME–IRU equipped) CRG J51 FAK                            |                        |
| Philadelphia (PHL)                               | PHLBO (RNAV)-STAR<br>J51 SAV J55 CHS J121 SWL SWL034 RADDS                 |                        |
| Tampa (TPA)                                      | VCN-STAR<br>TAY LZARD-STAR   | 1100-0400              |
|  | or<br>(GPS or DME/DME-IRU equipped) TAY DADES                              |                        |
| Washington Dulles (IAD)                          | (RNAV)-STARSAV CHS J165 J109 FAK COATT-STARor                              | 1100-0400              |
|  | (GPS or DME/DME-IRU equipped) SAV J207 RDU                                 |                        |
|  | FAK BARIN-STAR   | 1100-0400              |
| Washington Natl (DCA)                            | J51 SAV J55 CHS J165 RIC IRONS-STAR<br>or                                  | 1100-0400              |
|  | (GPS or DME/DME-IRU euipped) J51 SAV J55<br>CHS J165 RIC OJAAY (RNAV)-STAR | 1100-0400              |
| KEY WEST METRO AREA (NQX)                        |  |                        |
| Daytona Beach (DAB)                              | J41 RSW ORL  | 1030-0300              |
| Fort Lauderdale (FLL)                            | (all others) EYW DVALL-STARor  | 1030-0300              |
|  | (/E, /G, /R, /J, /L, /Q) EYW CURSO   |                        |
| Fort Marrie (DOM)                                | (RNAV)-STAR  | 1030-0300              |
| Fort Myers (RSW)                                 | J41<br>PHK   | 1030-0300<br>1030-0300 |
| Miami (MIA)                                      | (all others) EYW DVALL-STAR  | 1030-0300              |
|  | (/E, G, /R, /J, /L, /Q) EYW CURSO (RNAV)-STAR.                             | 1030-0300              |
| Orlando (MCO)                                    | J41 RSW MINEE-STAR   | 1030-0300              |
| Palm Beach (PBI)                                 | PHK  | 1030-0300              |
| Sarasota/Bradenton (SRQ)                         | J41 RSW V7 ROGAN   | 1030-0300              |
| Tallahassee (TLH)                                | J41 RSW LALor  | 1030-0300              |
| Tamas (TDA)                                      | (at or above FL360) J41 RSW TEPEE SZW                                      | 1030-0300              |
| Tampa (TPA)                                      | J41 RSW ROGAN BRDGE BRDGE-STAR   | 1030-0300              |
|  | (GPS or DME/DME-IRU equipped) J41 RSW<br>ROGAN DEAKK DEAKK (RNAV)-STAR     | 1000-0300              |
| Vero Beach (VRB)                                 | PHK  | 1030-0300              |
| KNOXVILLE (TYS)                                  |  |                        |
| Chicago O'Hare (ORD)                             | (/E/G/R/J/L/Q only) VXV HEVAN MZZ ROYKO                                    |                        |
|  | (RNAV)-STARor  | 0000–2359              |
|  | (non-advanced RNAV only) VXV HEVAN MZZ                                     |                        |
| Cleveland Metro (CLE)                            | MZZ344/33 OXI KNOX-STAR  | 0000–2359              |
| Detroit/Wayne (DTW)                              | VXV J91 BULEY J91 HNN TVT KEATN-STAR<br>VXV J91 HNN WEEDA-STAR             |                        |
| La Guardia (LGA)                                 | BKW J42 GVE KORRY-STAR   |                        |
| LAKELAND METRO AREA<br>(LAL, GIF, BOW, BKV, X16) |  |                        |
| Fort Lauderdale (FLL)                            | (Jets only-all others) RSW FORTL-STAR                                      |                        |
| Key West Intl (EYW)                              | RSW J41  | 1030-0300              |
| Miami (MIA)                                      | (Turbojets-GPS or DME/DME-IRU equipped) CYY                                |                        |
| West Palm Beach (PBI)                            | SSCOT (RNAV)-STAR(Turbojets-GPS or DME/DME-IRU equipped)                   |                        |
| WOSE FAIIII DEAGH (FDI)                          | WLACE (RANV)-STAR  | 1030-0300              |
| LEXINGTON (LEX)                                  |  |                        |
| Atlanta (ATL)                                    | (RNAV only) AZQ SOT FLCON (RNAV)-STAR                                      |                        |
| Cleveland (CLE)                                  | CVG ABERZ-STAR   |                        |

Effective Times (UTC)

| Terminals  | Route   | Times<br>(UTC) |
|--|---|----------------|
| LOUISVILLE METRO AREA (LOU, SDF)                   |   |                |
| From BOWMAN FIELD (LOU) only Dallas/Ft Worth (DFW) | PXV J131 LIT BYP  |                |
| Phoenix (PHX)                                      | FAM J78 ABQ J18   |                |
|  | or<br>FAM J78 IRW J74 SJN J18   |                |
| From LOUISVILLE INTL (SDF) only                    |   |                |
| Atlanta (ATL)                                      | MYS BWG ROME-STAR   |                |
|  | (RNAV only) MYS BWG RMG ERLIN (RNAV)-STAR   |                |
| Cleveland Metro (CLE)                              | CVG ABERZ-STAR  |                |
| Houston (HOU)                                      | (GPS or DME/DME-IRU equipped) SWB ROKIT<br>(RNAV)-STAR                              |                |
|  | Or  |                |
| Houston (IAH)                                      | (Non-advanced NAV only) SWB DAS-STAR<br>(Turbojets-GPS or DME/DME-IRU equipped) SWB |                |
| nouston (viii)                                     | TXMEX (RNAV)-STAR   |                |
|  | (Non-advanced NAV only) SWB DAS-STAR  |                |
| MEMPHIS (MEM)                                      | 7,  |                |
| Baltimore (BWI)                                    | J42 BKW J147 CSN OTT-STAR   |                |
|  | (GPS or DME/DME-IRU equipped) J42 BKW J147  |                |
| Boca Raton (BCT)                                   | CSN RAVNN (RNAV)-STAR(GPS or DME/DME-IRU equipped) MGM SZW                          |                |
| Book Naton (BoT)                                   | PRRIE (RNAV)-STAR   |                |
| Boston (BOS)                                       | J42 BNA J46 VXV SPA SPA100 J209 RDU J207<br>FKN J79 JFK ORW-STAR                    |                |
|  | 0f  |                |
|  | J118 SPA SPA100 J209 RDU J207 FKN J79 JFK ORW-STAR                                  |                |
| Cincinnati (CVG)                                   | (RNAV only) J29 PXV SARGO (RNAV)-STAR   |                |
|  | (all others) J29 PXV MOSEY–STAR   |                |
| Cleveland (CLE)                                    | PXV ABERZ-STAR  |                |
| Denver (DEN)  Detroit/Wayne (DTW)                  | RZC PER GCK J154 RYLIE DANDD-STAR<br>J29 PXV VHP FWA MIZAR-STAR                     |                |
| Houston (HOU)                                      | (DME/DME-IRU or GPS-equipped) LIT J180 SWB  |                |
|  | ROKIT (RNAV)-STAR   |                |
|  | (Non-advanced NAV only) LIT J180 SWB  |                |
|  | DAS-STAR  |                |
| Houston (IAH)                                      | (Turbojets-DME/DME-IRU or GPS-equipped) LIT J180 SWB TXMEX (RNAV)-STAR              |                |
|  | Or  |                |
|  | (Non-advanced NAV only) LIT J180 SWB<br>DAS-STAR                                    |                |
| Kennedy (JFK)                                      | J118 SPA SPA100 J209 ORF J121 SIE   |                |
| La Cuardia (LCA)                                   | CAMRN-STAR  |                |
| La Guardia (LGA)<br>Louisville (SDF)               | J42 GVE KORRY-STAR<br>BNA BNA037 BARRY EWO  |                |
| ,  | or  |                |
| Minneaudia (MCD)                                   | Q29 SIDAE CHERI CHERI-STAR  | 1200 0200      |
| Minneapolis (MSP)  Newark (EWR)                    | J35 STL IOW ALO KASPR-STAR<br>J42 GVE DYLIN-STAR                                    | 1300-0300      |
|  | or  |                |
|  | (GPS or DME/DME-IRU equipped) J42 GVE   |                |
| Orlando (ORL/MCO)                                  | PHLBO (RNAV)-STAR<br>MGM SZW J43 PIE LAL  | 1100-0400      |
| G. G           | or  | 1100 0.00      |
|  | GPS or DME/DME-IRU equipped) MGM SZW J43  |                |
|  | PIE COSTR (RNAV)-STAR   | 1100-0400      |
|  | J41 MGM S2W J43 PIE LAL   |                |
| Philadelphia (PHL)                                 | J42 GVE DPNT-STAR   |                |
| Pittsburgh (PIT)                                   | J29 PXV IIU HNN WISKE-STAR  |                |

| Terminals                      | Route   | Effective<br>Times<br>(UTC) |
|--------------------------------|---|-----------------------------|
| Sarasota/Bradenton (SRQ)       | MGM SZW CLAMP-STARMGM SZW DARBS-STAR  | 1100-0400                   |
| Tampa (TPA)                    | or<br>(GPS or DME/DME-IRU equipped) MEM SZW   | 1100-0400                   |
|                                | FOXX (RNAV)-STAR  | 1100-0400                   |
| Washington Dulles (IAD)        | J42 BKW ROYIL-STAR  | 1100-1830                   |
|                                | PXV IIU J8 HVQ SHNON (RNAV)-STAR<br>or  | 1830–2230                   |
|                                | J42 BKW SHNON (RNAV)-STAR   | 2230-0300                   |
| Washington Natl (DCA)          | PXV IIU J8 HVQ ROYIL-STAR   | 1830–2230                   |
| West Palm Beach (PBI)          | ELDEE (RNAV)-STAR<br>MGM SZW WLACE (RNAV)-STAR<br>J42 BNA J46 VXV SPA SPA100 J209 RDU J207        |                             |
| MIAMI METRO AREA               | FKN J79 JFK DPK DPK-STAR  |                             |
| (MIA, HWO, OPF, TMB, HST, X51) |   |                             |
| Albany (ALB)                   | (Water-Turbojets) VALLY PERMT AR16 ILM<br>KEMPR SBY J79 JOANI LGA LGA055 TRUDE                    |                             |
| Atlanta (ATL)                  | V487 CANAN V130<br>J81 CHESN SINCA-STAR   | 1000-0300                   |
| Baltimore (BWI)                | or<br>(RNAV only) J81 CHESN CANUK (RNAV)-STAR<br>J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC          | 1000-0300                   |
|                                | OTT-STAR  | 1000-0300                   |
|                                | (Water-Turbojets) VALLY PERMT AR16 ILM J40<br>RIC OTT-STAR  | 1000-0300                   |
|                                | or<br>(GPS or DME/DME-IRU equipped) J53 CRG J51<br>SAV J55 CHS J79 TYI J40 RIC RAVNN              |                             |
|                                | (RNAV)-STARor   | 1000-0300                   |
|                                | (GPS or DME/DME-IRU equipped) VALLEY PERMT<br>AR16 ILM J40 RIC RAVNN (RNAV)-STAR                  | 1000-0300                   |
| Bedford (BED)                  | (Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR                   | 1000-0300                   |
|                                | or<br>(Water–Turbojets) VALLY WOLFO AR18 DIW  |                             |
|                                | WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR   |                             |
| Beverly (BVY)                  | (Water-Turbojets) VALLY PERMT AR16 ILM<br>KEMPR SBY J79 JFK DPK MAD HFD                           |                             |
|                                | GRAYM-STARor  |                             |
|                                | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR                    |                             |
| Boston (BOS)                   | J53 CRG J51 SAV J55 CHS J79 JFK ORW-STAR or   | 1000-0300                   |
|                                | (Water-Turbojets) VALLY PERMT AR16 ILM<br>KEMPR SBY J79 JFK ORW-STAR                              |                             |
| Chicago Midway (MDW)           | (/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK<br>FISSK (RNAV)-STARor                                | 1000-0300                   |
|                                | (non-advanced RNAV only) CTY J91 ATL J89 IIU  | 4000 0000                   |
| Chicago O'Hare (ORD)           | OKK V285 CLEFT OXI CGT(/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ ROYKO | 1000-0300                   |
|                                | (RNAV)-STAR   | 1000-0300                   |

| Terminals   | Route   | Effective<br>Times<br>(UTC) |
|---|---|-----------------------------|
|   | or  |                             |
|   | (non-advanced RNAV only) LAL CTY J91 ATL<br>CADIT GLAZR HOPAP VOSTK HEVAN MZZ                                       | 4000 0000                   |
| Cincinnati (CVG)  | MZZ344/33 OXI KNOX-STAR<br>(RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR<br>or  | 1000-0300                   |
| Columbus (CMH)  | (all others) CTY J91 VXV HARDU-STAR<br>J81 IRQ J53 SPA J85 HVQ HNN BREMN-STAR                                       | 1000-0300                   |
| Cross City (CTY)  | J616 SRQ Q100 REDFN Q105 HRV J58 AEX CQY .  | 1030-0300<br>1000-0300      |
| Danbury (DXR)   | LAL J73 SZW J2 CEW J50 AEX CQY(Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR | 1000-0300                   |
| Daytona Beach (DAB)<br>Denver (DEN)                           | J53 HEDLY MLB V3 or MLB V3<br>LAL J73 SZW J41 MEM RZC PER GCK J154 RYLIE<br>DANDD-STAR                              | 1030-0300                   |
| Detroit/Wayne (DTW) Detroit Satellites:                       | J53 SPA HNN WEEDA-STAR  |                             |
| Ann Arbor (ARB), Detroit (DET), Pontiac (PTK), Windsor (CYQG) | J81 IRQ J99 VXV J43 FLM DQN CRUXX-STAR  |                             |
| Willow Run (YIP)  | 104 IDO 105 DID I I FEO CTAD  |                             |
| Ann Arbor (ARB)   | J81 IRQ J85 DJB LLEEO-STAR  | 4020 0200                   |
| Fort Pierce (FPR)<br>Farmingdale (FRG)                        | J53 HEDLY or FPR (Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN–STAR                         | 1030-0300                   |
| Gainesville (GNV)   | Direct  | 1030-0300                   |
| Hampton (HTO)   | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121   |                             |
| Hartford (HFD)  | (Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD V1   |                             |
| Houston Intenti (IAH)   | (DME/DME-IRU or GPS-equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)-STAR or (Non-advanced NAV only) LAL J73 SZW J2 CEW    | 1000-0300                   |
|   | J50 AEX DAS-STARor  | 1000-0300                   |
| Houston Hobby (HOU)   | J616 SRQ Q100 LEV WOLDE (RNAV)-STAR<br>(DME/DME-IRU or GPS-equipped) LAL J73 SZW<br>J2 SJI COLUMBIA (RNAV)-STAR     | 1000-0300                   |
|   | or  |                             |
|   | (GPS or DME/DME-IRU equipped) J616 SRQ<br>Q100 LEV COLUMBIA (RNAV)-STAR   | 1000-0300                   |
|   | or (Non-advanced NAV only) LAL J73 SZW J2 CEW J50 AEX DAS-STAR  | 1000-0300                   |
| Indianapolis (IND)  | LAL CTY J91 ATL J89 IIU DECEE-STAR  | 1000-0300                   |
| Islip (ISP)   | (Water–Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SARDI CCC   | 1000-0300                   |
| Jacksonville (JAX)  | J53   | 1030-0300                   |
| Kennedy (JFK)   | (Water-Turbojets) VALLY WOLFO AR18 DIW<br>WETRO CEBEE SWL J121 SIE CAMRN-STAR                                       | 1000-0300                   |
|   | UI 153 ODG 154 SAV 155 OHG 1404 CIT   |                             |
|   | J53 CRG J51 SAV J55 CHS J121 SIE  | 4000 0000                   |
| La Guardia (LGA)  | CAMRN-STAR (Water) VALLY PERMT AR16 ILM J40 TYI HPW J191 PXT KORRY-STAR   | 1000-0300                   |
|   | or<br>J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT   | 1000 0000                   |
| Lawrence (LWM)  | KORRY-STAR(Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK MAD HFD GRAYM-STAR                           | 1000-0300                   |
|   | or  |                             |

| Terminals   | Route  | Effective<br>Times                  |
|---|--|-------------------------------------|
| reminals  | (Water-Turbojets) VALLY WOLFO AR18 DIW<br>WETRO CEBEE SWL J174 HTO ORW   | (UTC)                               |
| Louisville (SDF)  | GRAYM-STAR   | 1000-0300                           |
| Melbourne (MLB)<br>Minneapolis (MSP)<br>Montreal (CYUL) | J53 HEDLY or DRCT<br>CTY J91 ATL J89 BAE EAU-STAR<br>VALLY PERMT AR16 ILM KEMPR SBY J79 JFK J37  | 1030-0300<br>1000-0300              |
| Nantucket (ACK)   | ALB J6 PLB ABCOT-STAR  | 4000 0200                           |
| Nashville (BNA)<br>Newark (EWR)                         | CTY J91 ATL GQO VOLLS-STAR<br>(Water) VALLY PERMT AR16 ILM J109 FAK<br>DYLIN-STAR<br>or<br>J53 CRG J51 SAV J207 FLO J55 J51 FAK                        | 1000-0300                           |
|   | DYLIN-STAR   | 1000-0300                           |
|   | (RNAV)-STAR  | 1000-0300                           |
| Newburgh (SWF)  | (GPS or DME/DME-IRU equipped) VALLY PERMT AR16 ILM J109 FAK PHLBO (RNAV)-STAR (Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR | 1000-0300                           |
| New Haven (HVN)   | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED  |                                     |
| New London/Groton (GON)  New Orleans (MSY)              | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO  | 1000-0300                           |
| Ocala (OCF)   | or<br>(Water) J616 SRQ Q100 REDFN Q105 HRV<br>J73 LAL or DRCT  | 1000-0300<br>1030-0300<br>1030-0300 |
| Overwater Routes to the Northeast                       | or<br>(PHK GOOFY-STAR(Water-Turbojets) VALLY PERMT AR16 ILMor  |                                     |
| Overwater Routes to the Northwest                       | (Water-Turbojets) VALLY WOLFO AR18 DIW<br>J616 SRQ Q100 LEV J86  | 1030-0300                           |
| Philadelphia (PHL)                                      | J616 SRQ Q100 REDFN Q105 HRV J58<br>J53 CRG J51 SAV J55 CHS J121 SWL SWL034<br>RADDS VCN-STAR  | 1030-0300<br>1000-0300              |
|   | or<br>(Water-Turbojets) VALLY WOLFO AR18 DIW<br>WETRO CEBEE SWL RADDS VCN-STAR   | 1000-0300                           |
| Pittsburgh (PIT)<br>Poughkeepsie (POU)                  | J53 CRG J51 CAE PSK EKN IHD NESTO-STAR (Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SBY J79 JFK DPK HUDSON-STAR  | 1000-0300                           |
| Providence (PVD)  | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J174 HTO JORDAN (RNAV)-STAR   |                                     |
| Raleigh-Durham (RDU)                                    | (Water-Turbojets) VALLY PERMT AR16 ILM BRADE-STAR  | 1000-0300                           |
| St Louis (STL)  | J53 CRG J51 SAV J55 CHS J174 ILM  BRADE-STARWINCO CTY J151 VISQA QBALL-STAR  or  (/E, /G, /R, /J, /L, /Q) WINCO KPASA Q110                             | 1000-0300<br>1000-0300              |
| Sarasota/Bradenton (SRQ)                                | FEONA VUZ J151 VISQA QBALL-STAR  | 1030-0300                           |

| Terminals                               | Route   | Effective<br>Times<br>(UTC) |
|---|---|-----------------------------|
| Tallahassee (TLH)                       | J73   | (0.0)                       |
| Tampa (TPA)                             | or LAL J43 BRDGE BRDGE–STAR or  | 1030-0300<br>1030-0300      |
| Toronto (CYYZ)                          | (GPS or DME/DME-IRU equipped) J43 DEAKK DEAKK (RNAV)-STAR   | 1030-0300                   |
| Vero Beach (VRB)                        | BUF YOUTH-STAR<br>DRCT  | 1030-0300                   |
| Washington Dulles (IAD)                 | J53 HEDLY<br>J53 CRG J51 SAV J207 RDU FAK COATT-STAR<br>or  | 1000-0300                   |
|   | (GPS or DME/DME-IRU equipped) J53 CRG J51<br>SAV J207 RDU FAK BARIN-STAR<br>or<br>(Water) VALLEY PERMT AR16 ILM J109 FAK  | 1000-0300                   |
|   | COATT-STARor  | 1000-0300                   |
| Washington Natl (DCA)                   | (Water-GPS or DME/DME-IRU equipped) VALLY PERMT AR16 ILM J109 FAK BARIN-STAR (Turbojets) J53 CRG J51 SAV J55 CHS J165 RIC | 1000-0300                   |
|   | IRONS-STARor  | 1000-0300                   |
|   | (Water-Turbojets) VALLY PERMT AR16 ILM J40 RIC IRONS-STAR   | 1000-0300                   |
|   | (GPS or DME/DME-IRU equipped) J53 CRG J51<br>SAV J55 CHS J165 RIC OJAAY (RNAV)-STAR<br>or                                 | 1000-0300                   |
|   | (Water-Turbojets-GPS or DME/DME-IRU equipped) VALLY PERMT ILM J40 RIC OJAAY (RNAV)-STAR                                   | 1000-0300                   |
| Westhampton (FOK)                       | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 HTO   |                             |
| White Plains (HPN)                      | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE BOUNO-STAR or   |                             |
|   | (Water-Turbojets) VALLY WOLFO AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR                                     |                             |
| Wilmington (ILM)                        | (Water-Turbojets) VALLY PERMT AR16<br>(Water-Turbojets) VALLY PERMT AR16 ILM<br>KEMPR SBY J79 VILLS DPK DPK-STAR          |                             |
| Worcester (ORH)                         | (Water-Turbojets) VALLY PERMT AR16 ILM KEMPR SYB J79 JFK DPK MAD HFD  |                             |
| MOBILE (MOB)                            |   |                             |
| Houston (HOU)                           | (DME/DME-IRU or GPS-equipped) SJI COLUMBIA<br>(RNAV)-STARor   |                             |
| Houston (IAH)                           | (Non-advanced NAV only) SJI J50 AEX DAS-STAR.<br>(DME/DME-IRU or GPS-equipped) SJI WOLDE<br>(RNAV)-STAR<br>or             |                             |
|   | (Non-advanced NAV only) SJI J50 AEX DAS-STAR.   |                             |
| MYRTLE BEACH (MYR) Detroit/ Wayne (DTW) | BKW GEMNI-STAR  |                             |
| NASHVILLE Baltimore (BWI)               | J42 BKW J147 CSN OTT-STAR   |                             |
| Dana Datas (DOT)                        | (GPS or DME/DME-IRU equipped) J42 BKW J147 CSN OTT-STAR   |                             |
| Boca Raton (BCT)                        | (GPS or DME/DME-IRU equipped) MGM SZW PRRIE (RNAV)-STAR   |                             |

| <b>▼</b>                            |  | Effective<br>Times |
|-------------------------------------|--|--------------------|
| Terminals Boston (BOS)              | Route J46 VXV SPA SPA100 J209 RDU J207 FKN J79   | (UTC)              |
| 203(011 (200)                       | JFK ORW-STAR   |                    |
| Chicago/Midway (MDW)                | (/E/G/R/J/L/Q only) IIU OKK FISSK<br>(RNAV)-STAR   | 0000-2359          |
|                                     | or<br>(non-advanced RNAV only) IIU OKK V285 CLEFT<br>OXI CGT                                     | 0000–2359          |
| Chicago O'Hare (ORD)                | (/E/G/R/J/L/Q only) IIU HEVAN MZZ ROYKO (RNAV)-STAR  | 0000-2359          |
|                                     | or<br>(non-advanced RNAV only) IIU HEVAN MZZ<br>MZZ344/33 OXI KNOX-STAR                          | 0000–2359          |
| Cincinnati (CVG)                    | IIU MZZ OXI KNOX–STAR<br>BWG V49 ABB V47 CVG   |                    |
| Cleveland (CLE)                     | IIU ABERZ-STAR   |                    |
| Columbus (CMH)  Denver (DEN)        | LVT V493 YRK YRK035 APE168 NIKLS<br>FAM J112 BUM J110 GCK J154 RYLIE<br>DANDD-STAR               |                    |
| Detroit/Wayne (DTW)                 | (RNAV only) IMPEL VHP FWA MIZAR-STAR<br>or   |                    |
|                                     | CCT VHP FWA MIZAR-STAR   |                    |
| Fort Lauderdale (FLL)               | (all others) J39 MGM SZW J41 PIE FORTL–STAR<br>(Turbojets–GPS or DME/DME–IRU equipped) J39       |                    |
| Houston (HOU)                       | MGM J41 SZW SSCOT (RNAV)-STAR<br>(GPS or DME/DME-IRU equipped) LIT J180 SWB<br>ROKIT (RNAV)-STAR | 1100-0300          |
|                                     | or<br>(Non-advanced NAV only) LIT J180 SWB   |                    |
| Houston (IAH)                       | DAS-STAR (Turbojets-GPS or DME/DME-IRU equipped) LIT J180 SWB TXMEX (RNAV)-STAR or               |                    |
|                                     | (Non-advanced NAV only) LIT J180 SWB DAS-STAR  |                    |
| Indianapolis (IND)<br>Kennedy (JFK) | J39 IIU DECEE-STAR<br>J46 VXV SPA SPA100 J209 ORF J121 SIE                                       |                    |
| La Guardia (LGA)                    | CAMRN-STARJ42 GVE KORRY-STAR   |                    |
| Miami (MIA)                         | (all others) J39 MGM SZW J41 PIE CYY–STAR  |                    |
|                                     | (Turbojets-GPS or DME/DME-IRU equipped) J39<br>MGM SZW SSCOT (RNAV)-STAR                         |                    |
| Minneapolis (MSP) Newark (EWR)      | IIU J89 BAE EAU-STARSPA J14 J51 FAK DYLIN-STAR   | 1100-0400          |
|                                     | (GPS or DME/DME-IRU equipped) SPA J14 J51  |                    |
| 0.1                                 | FAK PHLBO (RNAV)-STAR  | 1100-0400          |
| Orlando (MCO, ORL)                  | J39 MGM SZW J43 PIE LALor  | 1100-0400          |
|                                     | (GPS or DME/DME-IRU equipped) J39 MGM SZW J43 PIE COSTR (RNAV)-STAR                              | 1100-0400          |
| Philadelphia (PHL)                  | J42 OTT DPNT-STAR  |                    |
| Pittsburgh (PIT)<br>St. Louis (STL) | IIU HNN WISKE-STAR<br>QBALL-STAR   |                    |
| Toronto (CYYZ)                      | J39 ROD J43 CRL J586 YXU V98 YWT V216  |                    |
| Washington Dulles (IAD)             | J42 BKW ROYIL-STAR   |                    |
| Washington Natl (DCA)               | J42 BKW SHNON (RNAV)-STAR<br>J42 BKW WZRRD-STAR  |                    |
|                                     | or   |                    |
|                                     | (GPS or DME/DME-IRU equipped) J42 BKW  |                    |
| West Palm Beach (PBI)               | ELDEE (RNAV)-STAR(Turbojets-GPS or DME/DME-IRU equipped)   |                    |
| , <u>-,</u>                         | MGM SZW WLACE (RNAV)-STAR  |                    |

| Terminals                                       | Route   | Effective<br>Times<br>(UTC) |
|---|---|-----------------------------|
| Windsor Locks (BDL)                             | J46 VXV SPA SPA100 J209 RDU J207 FKN J79  | (/                          |
|   | JFK DPK DPK-STAR  |                             |
| ORLANDO METRO AREA<br>(MCO, ORL, ISM, LEE, SFB) |   |                             |
| Baltimore (BWI)                                 | (Water-Turbojets-GPS or DME/DME-IRU   |                             |
|   | equipped) MLB LENDS AR16 ILM J40 RIC  | 1100 0100                   |
|   | RAVNN (RNAV)-STARor   | 1100-0400                   |
|   | (GPS or DME/DME-IRU equipped) J53 CRG J51   |                             |
|   | SAV J55 CHS J79 TYI J40 RIC RAVNN   | 4400 0400                   |
| Detroit/Wayne (DTW)                             | (RNAV)-STARJAGUAR-DP IRQ J53 SPA HNN WEEDA-STAR   | 1100-0400                   |
| Fort Pierce (FPR)                               | VRB   | 1030-0300                   |
| Houston (HOU)                                   | (GPS or DME/DME-IRU equipped) PIE REMIS   | 1000 0200                   |
|   | Q100 LEV COLUMBIA (RNAV)-STAR<br>or   | 1000-0300                   |
|   | (GPS or DME/DME-IRU equipped) SZW J2 SJI  |                             |
|   | COLUMBIA (RNAV)-STAR  | 1000-0300                   |
|   | or<br>(Non-advanced NAV only) SZW J2 CEW J50 AEX  |                             |
|   | DAS-STAR  | 1000-0300                   |
| Houston (IAH)                                   | (GPS or DME/DME-IRU equipped) PIE REMIS   |                             |
|   | Q100 LEV WOLDE (RNAV)-STARor  | 1000-0300                   |
|   | (GPS or DME/DME-IRU equipped) SZW J2 SJI  |                             |
|   | WOLDE (RNAV)-STAR   |                             |
|   | or<br>(Non-advanced NAV only) SZW J2 CEW J50 AEX  |                             |
|   | DAS-STAR  | 1000-0300                   |
| Key West (EYW)                                  | RSW J41   | 1030-0300                   |
| Overwater Routes to the Northeast               | (Water-Turbojets) MLB LENDS AR16 ILM<br>or  |                             |
|   | (Water-Turbojets) MLB ETECK AR18 DIW  |                             |
| Wilmington (ILM)                                | (Water-Turbojets) MLB LENDS AR16  |                             |
| From ORLANDO EXECUTIVE (ORL) only               |   |                             |
| Albany (ALB)                                    | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR  |                             |
|   | SBY J79 JOANI LGA LGA055 TRUDE V487<br>CANAN V130                                       |                             |
| Atlanta (ATL)                                   | J53 CRG DBN SINCA-STAR  |                             |
|   | OF (DNAV anh) IE2 CDC DDN CANUIK DNAV STAD  |                             |
| Baltimore (BWI)                                 | (RNAV only) J53 CRG DBN CANUK RNAV-STAR<br>(Water-Turbojets) MLB LENDS AR16 ILM J40 RIC |                             |
| ,   | OTT-STAR  | 1100-0400                   |
|   | or<br>J53 CRG J51 SAV J55 CHS J79 TYI J40 RIC   |                             |
|   | OTT-STAR  | 1100-0400                   |
| Bedford (BED)                                   | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR  |                             |
|   | SBY J79 JFK DPK MAD HFD GRAYM-STAR  |                             |
|   | or<br>(Water–Turbojets) MLB ETECK AR18 DIW WETRO  |                             |
|   | CEBEE SWL J174 HTO ORW GRAYM-STAR   |                             |
| Beverly (BVY)                                   | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR  |                             |
|   | SBY J79 JFK DPK MAD HFD GRAYM-STAR<br>or  |                             |
|   | (Water-Turbojets) MLB ETECK AR18 DIW WETRO  |                             |
|   | CEBEE SWL J174 HTO ORW GRAYM-STAR   |                             |
| Bridgeport (BDR)                                | (Water–Turbojets) MLB ETECK AR18 DIW WETRO  |                             |
|   | CEBEE SWL J121 SIE V139 RICED MAD193 KEYED  |                             |
| Charlotte (CLT)                                 | J53 CRG J51 SAV J207 FLO CTF-STAR   |                             |
|   | Or<br>(Turboiote CBS or DME /DME IBIL oquipped) 153                                     |                             |
|   | (Turbojets-GPS or DME/DME-IRU equipped) J53 CRG J51 SAV HUSTN (RNAV)-STAR               |                             |
| Cincinnati (CVG)                                | (RNAV only) J53 CRG J45 ATL J43 VXV JAKIE   |                             |
|   | (RNAV)-STAR   |                             |

|  |  | Effective |
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| Tamainala                              | Dt-  | Times     |
| Terminals                              | Route  | (UTC)     |
|  | or<br>(all others) J53 CRG J45 ATL J43 VXV           |           |
|  | HARDU-STAR   |           |
| Cleveland (CLE)                        | J53 SPA J85 TVT040 KEATN KEATN-STAR                  |           |
| Columbus (CMH)                         | J53 SPA J85 HVQ HNN BREMN-STAR                       |           |
| Dallas/Ft. Worth (DFW)                 | PIE REMIS Q100 REDFN Q105 HRV J58 AEX CQY.           |           |
| Danbury (DXR)                          | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 SIE V139 RICED                        |           |
|  | RICED-STAR   |           |
| Denver (DEN)                           | CTY SZW J41 MEM RZC PER GCK J154 RYLIE               |           |
|  | DANDD-STAR   |           |
| Detroit/Wayne (DTW)                    | VXV J91 HNN WEEDA-STAR                               |           |
| Detroit Satellites:                    |  |           |
| Detroit (DET), Windsor (CYQG), Pontiac |  |           |
| (PTK), Willow Run (YIP), Ann Arbor     | J53 CRG J45 ATL J91 VXV J43 FLM DQN                  |           |
| (ARB)                                  | CRUXX-STAR   | 1100-0400 |
|  | or   |           |
|  | J53 IRQ J85 DJB LLEEO-STAR                           |           |
| East Hampton (HTO)                     | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 HTO                                   |           |
| Farmingdale (FRG)                      | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 SIE CAMRN-STAR                        |           |
| Hartford (HFD)                         | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR           |           |
|  | SBY J79 JFK DPK MAD V1                               |           |
| Indianapolis (IND)                     | J53 CRG J45 ATL J89 IIU DECEE-STAR                   |           |
| Islip (ISP)                            | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 SARDI CCC                             |           |
| Kennedy (JFK)                          | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 SIE CAMRN-STAR                        | 0700-0000 |
|  | or   |           |
|  | J53 CRG J51 SAV J55 CHS J121 SIE                     |           |
|  | CAMRN-STAR   |           |
| La Guardia (LGA)                       | (Water-Turbojets) MLB LENDS AR16 ILM J40 TYI         |           |
|  | HPW J191 PXT KORRY-STAR                              | 1100-0300 |
|  | or<br>J53 CRG J51 SAV J207 RDU J55 HPW J191 PXT      |           |
|  |  | 1100-0300 |
| Lawrence (LWM)                         | KORRY-STAR(Water-Turbojets) MLB LENDS AR16 ILM KEMPR | 1100-0300 |
| Lawrence (LWW)                         |  |           |
|  | SBY J79 JFK DPK MAD HFD GRAYM-STAR                   |           |
|  | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J174 HTO ORW GRAYM-STAR                    |           |
| Louisville (SDF)                       | CTY J91 ATL HCH DARBY-STAR                           |           |
| Manchester (MHT)                       | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR           |           |
| Marionoster (MITT)                     | SBY J79 JFK ALB EEN                                  |           |
| Minneapolis (MSP)                      | CTY J91 ATL J89 BAE EAU-STAR                         | 1100-0400 |
| Montreal (CYUL)                        | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR           | 1100 0.00 |
|  | SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR                |           |
| Nantucket (ACK)                        | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J174 HTO V46                               |           |
| Nashville (BNA)                        | CTY J91 ATL VOLLS-STAR                               | 1100-0400 |
| Newark (EWR)                           | (GPS or DME/DME-IRU equipped-WATER) MLB              |           |
| , ,                                    | LENDS AR16 ILM J109 FAK PHLBO                        |           |
|  | (RNAV)-STAR  | 1100-0400 |
|  | or   |           |
|  | (GPS or DME/DME-IRU equipped) J53 CRG J51            |           |
|  | SAV J207 FLO J55 J51 FAK PHLBO                       |           |
|  | (RNAV)-STAR  | 1100-0400 |
| Newburgh (SWF)                         | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR           |           |
|  | SBY J79 JFK DPK HUDSON-STAR                          |           |
| New Haven (HVN)                        | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 SIE V139 RICED MAD193                 |           |
|  | KEYED  |           |
| New London (GON)                       | (Water-Turbojets) MLB ETECK AR18 DIW WETRO           |           |
|  | CEBEE SWL J121 HTO                                   |           |
|  |  |           |

|                              |  | Effective<br>Times     |
|------------------------------|--|------------------------|
| Terminals                    | Route  | (UTC)                  |
| Philadelphia (PHL)           | (Water-Turbojets) J53 CRG J55 CHS J121 SWL   |                        |
| Pittsburgh (PIT)             | SWL034 RADDS VCN-STARCRG J51 CAE PSK EKN IHD NESTO-STAR  | 1100-0400<br>1100-0400 |
| Poughkeepsie (POU)           | (Water–Turbojets) MLB LENDS AR16 ILM KEMPR   | 1100 0.00              |
|                              | SBY J79 JFK DPK HUDSON-STAR  |                        |
| Providence (PVD)             | (Water-Turbojets) MLB ETECK AR18 DIW WETRO   |                        |
| Springfield (CEF)            | CEBEE SWL J174 HTO JORDN (RNAV)-STAR (Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 VILLS DPK DPK-STAR |                        |
| St. Louis (STL)              | CTY SZW J41 VUZ J151 VISQA QBALL-STAR  | 1100-0400              |
| Toronto (CYYZ)               | (Water-Turbojets) MLB LENDS AR16 ILM J109<br>BUF YOUTH-STAR  |                        |
| Washington Natl (DCA)        | (Water-Turbojets-GPS or DME/DME-IRU  |                        |
|                              | equipped) MLB LENDS AR16 ILM J40 RIC   |                        |
|                              | OJAAY (RNAV)-STAR  |                        |
|                              | or<br>(Water–Turbojets) MLB LENDS AR16 ILM J40 RIC   |                        |
|                              | IRONS-STAR   |                        |
| Washington Dulles (IAD)      | (Water-GPS or DME/DME-IRU equipped) MLB  |                        |
|                              | LENDS AR16 ILM J109 FAK BARLIN -STAR   |                        |
|                              | or<br>(Water) MLB LENDS AR16 ILM J109 FAK  |                        |
|                              | COATT-STAR   |                        |
| Westfield (BAF)              | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR   |                        |
| Washamatan Basah (FOK)       | SBY J79 VILLS DPK DPK-STAR   |                        |
| Westhampton Beach (FOK)      | (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 HTO  |                        |
| White Plains (HPN)           | (Water–Turbojets) MLB ETECK AR18 DIW WETRO   |                        |
|                              | CEBEE SWL J121 SIE BOUNO-STAR  |                        |
|                              | Or   |                        |
|                              | (Water-Turboprops) MLB ETECK AR18 DIW<br>WETRO CEBEE SWL J121 SIE V139 RICED                               |                        |
|                              | RICED-STAR   |                        |
| Windsor Locks (BDL)          | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR   |                        |
| Warranter (ODII)             | SBY J79 VILLS DPK DPK-STAR   |                        |
| Worcester (ORH)              | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR<br>SBY J79 JFK DPK MAD HFD                                      |                        |
| From ORLANDO INTL (MCO) only |  |                        |
| Atlanta (ATL)                | MCOY-DP AMG SINCA-STAR   | 1100-0400              |
|                              | or<br>(RNAV only) JAGUAR-DP DBN CANUK  |                        |
|                              | (RNAV)-STAR  | 1100-0400              |
| Baltimore (BWI)              | MCOY-DP SAV J55 CHS J79 TYI J40 RIC  |                        |
|                              | OTT-STAR   | 1100-0400              |
|                              | or<br>(Water–Turbojets) MLB LENDS AR16 ILM J40 RIC   |                        |
|                              | OTT-STAR   |                        |
| Bedford (BED)                | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR   |                        |
|                              | SBY J79 JFK DPK MAD HFD GRAYM-STAR   |                        |
|                              | or<br>(Water–Turbojets) MLB ETECK AR18 DIW WETRO   |                        |
|                              | CEBEE SWL J174 HTO ORW GRAYM-STAR  |                        |
| Beverly (BVY)                | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR   |                        |
|                              | SBY J79 JFK DPK MAD HFD GRAYM-STAR   |                        |
|                              | or<br>(Water–Turbojets) MLB ETECK AR18 DIW WETRO   |                        |
|                              | CEBEE SWL J174 HTO ORW GRAYM-STAR  |                        |
| Boston (BOS)                 | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR   |                        |
|                              | SBY J79 JFK ORW-STAR   | 1100-0300              |
|                              | or<br>MCOY-DP SAV J55 CHS J79 JFK ORW-STAR   | 1100-0300              |
| Bridgeport (BDR)             | (Water–Turbojets) MLB ETECK AR18 DIW WETRO   |                        |
|                              | CEBEE SWL J121 SIE V139 RICED MAD193   |                        |
| Charlotte (CLT)              | KEYED MCOY-DP SAV J207 FLO CTF-STAR  |                        |
| Ondifotto (OLI)              | MOOT DE SAVIZOT LO CIT-STAR  |                        |

| Terminals  | Route   | Effective<br>Times<br>(UTC) |
|--|---|-----------------------------|
|  | or (Turbojets-GPS or DME/DME-IRU equipped) MCOY-DP SAV HUSTN (RNAV)-STAR  |                             |
| Chicago Midway (MDW)   | (/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK<br>FISSK (RNAV)-STAR  | 1100-0400                   |
| Chicago O'Hare (ORD)   | or (non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT  | 1100-0400                   |
|  | (RNAV)-STAR   | 1100-0400                   |
| Cincinnati (CVG)   | (non-advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR  | 1100-0400                   |
|  | or<br>(all others) MCOY-DP AMG J45 ATL J43 VXV<br>HARDU-STAR  | 1100-0400                   |
| Columbus (CMH)   | MCOY-DP IRQ J53 SPA J85 HVQ HNN BREMN-STAR  | 1100-0400                   |
| Danbury (DXR)  | (WATER-Turbojets) MLB ETECK AR18 DIW WETRO<br>CEBEE SWL J121 SIE V139 RICED   |                             |
| Detroit/Wayne (DTW)  Detroit Satellites: Detriot (DET), Windsor (CYQG), Pontiac (PTK), Willow Run (YIP), Ann Arbor | RICED-STAR<br>JAGUAR-DP IRQ J53 SPA HNN WEEDA-STAR  |                             |
| (ARB)  | JAGUAR-DP IRQ J85 DJB LLEEO-STAR<br>LBV   |                             |
| Indianapolis (IND)   | SBY J79 JFK DPK MAD V1 CTY J91 ATL J89 IIU DECEE-STAR (Water-Turbojets) MLB ETECK AR18 DIW WETRO  | 1100-0400                   |
| Kennedy (JFK)  | CEBEE SWL J121 SARDI CCC. (Water) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR  |                             |
| La Guardia (LGA)   | MCOY-DP SAV J55 CHS J121 SIE CAMRN-STAR<br>MCOY-DP SAV J207 RDU J55 HPW J191 PXT<br>ENO-STAR  | 1100-0300                   |
| Lawrence (LWM)   | (Water-Turbojets) MLB LENDS AR16 ILM J40 TYI<br>HPW J191 PXT ENO-STAR<br>(Water-Turbojets) MLB LENDS AR16 ILM KEMPR<br>SBY J79 JFK DPK MAD HFD GRAYM-STAR |                             |
| Louisville (SDF)<br>Minneapolis (MSP)  | or (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR CTY J91 ATL HCH DARBY-STAR (all others) CTY VUZ ALO KASPR-STAR or         | 1100-0400                   |
| Montreal (CYUL)  | (/E, /G, /R, /J, /L, /Q) WEBSS BRUTS Q110<br>FEONA VUZ ALO KASPR-STAR(Water-Turbojets) MLB LENDS AR16 ILM KEMPR   |                             |
| Nantucket (ACK)  | SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR<br>(Water-Turbojets) MLB ETECK AR18 DIW WETRO   |                             |
| Nashville (BNA)<br>Newark (EWR)  | CEBEE SWL J174 HTO V46  | 1100-0400                   |
|  | or<br>MCOY-DP SAV J207 FLO J55 J51 FAK<br>DYLIN-STAR<br>or  |                             |

| Terminals                 | Route   | Effective<br>Times<br>(UTC) |
|---------------------------|---|-----------------------------|
| Terminals                 | J53 CRG J51 SAV J207 FLO J55 J51 FAK  | (010)                       |
|                           | DYLIN-STAR  | 1100-0400                   |
|                           | (Turbojets-WATER) MLB LENDS AR16 ILM J109 FAK DYLIN-STAR or   | 1100-0400                   |
|                           | (GPS or DME/DME-IRU equipped) MCCOY SAV   |                             |
|                           | J207 FLO J55 J51 FAK PHLBO (RNAV)-STAR or   | 1100-0400                   |
|                           | (GPS or DME/DME-IRU equipped-WATER) MLB<br>LENDS AR16 ILM J109 FAK PHLBO<br>(RNAV)-STAR                       | 1100-0400                   |
| Newburgh (SWF)            | (Water-Turbojets)-MLB LENDS AR16 ILM KEMPR<br>SBY J79 JFK DPK HUDSON-STAR                                     |                             |
| New Haven (HVN)           | (Water-Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED MAD193 KEYED                         |                             |
| New London (GON)          | (Water-Turbojets) MLB ETECK AR18 DIW WETRO<br>CEBEE SWL J121 HTO  |                             |
| Philadelphia (PHL)        | (Turbojets) MCOY-DP SAV J55 CHS J121 SWL<br>SWL034 RADDS VCN-STAR   | 1100-0400                   |
|                           | or  | 1100 0 100                  |
|                           | (Water–Turbojets) MLB ETECK AR18 DIW WETRO CEBEE SWL RADDS VCN–STAR   |                             |
| Pittsburgh (PIT)          | MCOY-DP SAV J51 CAE PSK EKN IHD   |                             |
| 5 . ,                     | NESTO-STAR  | 1100-0400                   |
| Poughkeepsie (POU)        | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR<br>SBY J79 JFK DPK HUDSON-STAR                                     |                             |
| Providence (PVD)          | (Water-Turbojets) MLB ETECK AR18 DIW WETRO<br>CEBEE SWL J174 HTO JORDN (RNAV)-STAR                            |                             |
| Springfield (CEF)         | (Water-Turbojets) MLB LENDS AR16 ILM KEMPR<br>SBY J79 VILLS DPK DPK-STAR                                      |                             |
| St. Louis (STL)           | CTY J151 VISQA QBALL-STARor   |                             |
|                           | (/E, /G, /R, /J, /L, /Q) WEBBS BRUTS Q110   |                             |
| Toronto (CYYZ)            | FEONA VUZ J151 VISQA QBALL-STAR (Water-Turbojets) MLB LENDS AR16 ILM KEMPR SBY J79 JFK CFB J95 BUF YOUTH-STAR |                             |
| Washington Dulles (IAD)   | MCOY-DP SAV J55 CHS J165 J109 FAK   | 4400 0000                   |
| Westfield (BAF)           | COATT-STAR  | 1100-0300                   |
| West Palm Beach (PBI)     | SBY J79 VILLS DPK DPK-STAR (Turbojets-GPS or DME/DME-IRU equipped)  |                             |
|                           | DEARY VRB FRWAY (RNAV)—STAR<br>or<br>DEARY VRB TUXXI—STAR   |                             |
| PALM BEACH METRO AREA     | DEART VRB TOXXI-STAR  |                             |
| (PBI, BCT, LNA, UTX, SUA) |   |                             |
| Albany (ALB)              | (Water-Turbojets) A699 PERMT AR16 ILM KEMPR<br>SBY J79 JOANI LGA LGA055 TRUDE V487<br>CANAN V130              |                             |
| Atlanta (ATL)             | (RNAV only) ORL J81 CHESN CANUK   |                             |
|                           | (RNAV)-STAR   | 1100-0300                   |
| Baltimore (BWI)           | ORL J81 CHESN SINCA-STAR  | 1100-0300                   |
|                           | ORL CRG J51 SAV J55 CHS J79 TYI J40 RIC OTT-STAR  | 1100-0300                   |
|                           | (Water-Turbojets-GPS or DME/DME-IRU<br>equipped) A699 PERMT AR16 ILM J40 RIC<br>RAVNN (RNAV)-STAR<br>or       |                             |

| Terminals                                 | Route  | Effective<br>Times<br>(UTC) |
|---|--|-----------------------------|
|   | (GPS or DME/DME-IRU equipped) ORL CRG J51<br>SAV J55 CHS J79 TYI J40 RIC RAVNN   |                             |
|   | (RNAV)-STAR  | 1100-0300                   |
| Bedford (BED)                             | (Water-ALT-Turbojets) A699 RAMJT AR18 DIW<br>WETRO CEBEE SWL J174 HTO ORW<br>GRAYM-STAR  | 1100-0300                   |
|   | or<br>(Water-Turbojets) A699 PERMT AR16 ILM KEMPR  |                             |
| Beverly (BVY)                             | SBY J79 JFK DPK MAD HFD GRAYM-STAR (Water-ALT-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR                                 |                             |
|   | or   |                             |
| Boston (BOS)                              | (Water-Turbojets) A699 PERMT AR16 ILM KEMPR<br>SBY J79 JFK DPK MAD HFD GRAYM-STAR<br>(Water-Turbojets) A699 PERMT AR16 KEMPR SBY<br>J79 JFK ORW-STAR | 1100 0200                   |
|   | or   | 1100-0300                   |
|   | ORL J53 CRG J51 SAV J55 CHS J79 JFK  |                             |
| Bridgeport (BDR)                          | ORW-STAR<br>(Water-Turbojets) A699 RAMJT AR18 DIW WETRO<br>CEBEE SWL J121 SIE V139 RICED MAD193  | 1100-0400                   |
| Charlotte (CLT)                           | KEYED<br>ORL J53 CRG J51 SAV J207 FLO CTF-STAR   |                             |
|   | or<br>(Turbojets-GPS or DME/DME IRU equipped) ORL  |                             |
|   | J53 CRG J51 SAV HUSTN (RNAV)-STAR  |                             |
| Chicago Midway (MDW)                      | (/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK  |                             |
|   | FISSK (RNAV)-STARor  | 1100-0300                   |
|   | (non-advanced RNAV only) CTY J91 ATL J89 IIU   |                             |
| Objects O'lless (ODD)                     | OKK V285 CLEFT OXI CGT   | 1100-0400                   |
| Chicago O'Hare (ORD)                      | (/E/G/R/J/L/Q only) LAL CTY J91 ATL CADIT<br>GLAZR HOPAP VOSTK HEVAN MZZ ROYKO<br>(RNAV)-STAR  | 1100-0300                   |
|   | or   | 1100 0000                   |
|   | (non-advanced RNAV only) LAL CTY J91 ATL   |                             |
|   | CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR  | 1100-0300                   |
| Cincinnati (CVG)                          | (All Others) CTY J91 VXV HARDU-STAR  | 1100-0300                   |
|   | or<br>(RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR  |                             |
| Cleveland (CLE)                           | ORL J53 SPA J85 TVTO40 KEATN KEATN-STAR<br>ORL J81 IRQ J53 SPA J85 HVQ HNN   | 1100-0300                   |
|   | BREMN-STAR   | 1100-0300                   |
| Cross City (CTY)<br>Dallas/Ft Worth (DFW) | LALSRQ Q100 REDFN Q105 HRV J58 AEX CQY   | 1030-0300                   |
| Danbury (DXR)                             | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED RICED-STAR   |                             |
| Daytona Beach (DAB)                       | MLB  | 1030-0300                   |
| Denver (DEN)                              | SRQ Q100 REDFN Q105 HRV J58 SPS J168 LAA QUAIL-STAR  |                             |
|   | CTY SZW J41 MEM RZC PER GCK J154 RYLIE DANDD-STAR  |                             |
| Detroit/Wayne (DTW)                       | ORL J53 SPA HNN WEEDA-STAR   |                             |
| Dixon (DIW)                               | (Water-Turbojets) WOLFO AR18(Water Turbojets) A699 PAMIT AR18 DIW WETPO  |                             |
| East Hampton (HTO)                        | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO<br>CEBEE SWL J121 HTO  |                             |
| Farmingdale (FRG)                         | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR  | 4000                        |
| Fort Myers (RSW)                          | RSW(Water-Turbojets) A699 RAMJT AR18 DIW WETRO   | 1030-0300                   |
|   | CEBEE SWL J121 HTO   |                             |

| Terminals                          | Pouto   | Times<br>(UTC) |
|------------------------------------|---|----------------|
| Hartford (HFD)                     | <b>Route</b><br>(Water–Turbojets) A699 PERMT AR16 ILM KEMPR                       | (010)          |
|                                    | SBY J79 JFK DPK MAD V1  |                |
| Houston (HOU)                      | (GPS or DME/DME-IRU equipped) SRQ Q100 LEV  | 1000 0200      |
|                                    | COLUMBIA (RNAV)-STARor  | 1000-0300      |
|                                    | (GPS or DME/DME-IRU equipped) LAL J73 SZW   |                |
|                                    | J2 SJI COLUMBIA (RNAV)-STAR   | 1000-0300      |
|                                    | Or<br>(Non-advanced NAV only) LAL 172 S7W 12 CEW                                  |                |
|                                    | (Non-advanced NAV only) LAL J73 SZW J2 CEW<br>J50 AEX DAS-STAR                    | 1000-0300      |
| Houston (IAH)                      | (GPS or DME/DME-IRU equipped) SRQ Q100 LEV  |                |
|                                    | WOLDE (RNAV)-STAR   | 1000-0300      |
|                                    | Or<br>(CDS or DME /DME IBIL oquipped) LAL 172 S7W                                 |                |
|                                    | (GPS or DME/DME-IRU equipped) LAL J73 SZW J2 SJI WOLDE (RNAV)-STAR                | 1000-0300      |
|                                    | or  | 1000 0000      |
|                                    | (Non-advanced NAV only) LAL J73 SZW J2 CEW  |                |
| Indianandia (IMID)                 | J50 AEX DAS-STAR  | 1000-0300      |
| Indianapolis (IND)Islip (ISP)      | CTY J91 ATL J89 IIU DECEE-STAR(Water-Turbojets) A699 RAMJT AR18 DIW WETRO         | 1100-0300      |
| ionp (ion)                         | CEBEE SWL J121 SARDI CCC  |                |
| Jacksonville (JAX)                 | ORL J53   | 1030-0300      |
| Kennedy (JFK)                      | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO                                       |                |
|                                    | CEBEE J121 SIE CAMRN-STAR   | 1100-0300      |
|                                    | ORL J53 CRG J51 SAV J55 CHS J121 SIE  |                |
|                                    | CAMRN-STAR  | 1000-0300      |
| La Guardia (LGA)                   | (Water-Turbojets) A699 PERMT AR16 ILM J40 TYI                                     |                |
|                                    | HPW J191 PXT KORRY-STAR   |                |
|                                    | ORL J53 CRG J51 SAV J207 RDU J55 HPW J191   |                |
|                                    | PXT KORRY-STAR  | 1100-0400      |
| Lawrence (LWM)                     | (Water-Turbojets) A699 PERMT AR16 ILM KEMPR<br>SBY J79 JFK DPK MAD HFD GRAYM-STAR |                |
|                                    | or<br>(Water-ALT-Turbojets) A699 RAMJT AR18 DIW                                   |                |
|                                    | WETRO CEBEE SWL J174 HTO ORW  |                |
|                                    | GRAYM-STAR  |                |
| Louisville (LOU)                   | CTY J91 ATL HCH DARBY-STAR  | 1100-0300      |
| Manchester (MHT)                   | (Water–Turbojets) A699 PERMT AR16 ILM KEMPR<br>SBY J79 JFK ALB EEN                |                |
| Minneapolis (MSP)                  | CTY J91 ATL J89 BAE EAU-STAR  | 1100-0300      |
| Montreal (CYUL)                    | (Water-Turbojets) A699 PERMT AR16 ILM KEMPR                                       |                |
|                                    | SBY J79 JFK J37 ALB J6 PLB ABCOT-STAR   |                |
| Nashville (BNA)<br>Nantucket (ACK) | CTY J91 ATL GQO VOLLS-STAR(Water-Turbojets) A699 RAMJT AR18 DIW WETRO             | 1100-0300      |
| Nantuoket (Aori)                   | CEBEE SWL J174 HTO V46  |                |
| Newark (EWR)                       | (Water-GPS or DME/DME-IRU equipped) A699  |                |
|                                    | PERMT AR16 ILM J109 FAK PHLBO<br>(RNAV)-STAR                                      |                |
|                                    | or  |                |
|                                    | ORL J53 CRG J51 SAV J207 FLO J55 J51 FAK  |                |
|                                    | DYLIN-STAR  | 1100-0300      |
|                                    | or<br>(WATER) A699 PERMT AR16 ILM J109 FAK  |                |
|                                    | DYLIN-STAR  |                |
|                                    | or  |                |
|                                    | (GPS or DME/DME-IRU equipped) ORL J53 CRG   |                |
|                                    | J51 SAV J207 FLO J55 J51 FAK PHLBO<br>(RNAV)-STAR                                 | 1100-0300      |
| Newburgh (SWF)                     | (Water–Turbojets) A699 PERMT AR16 ILM KEMPR                                       | 1100 0000      |
| - ' '                              | SBY J79 JFK DPK HUDSON-STAR   |                |
| New Haven (HVN)                    | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO                                       |                |
|                                    | CEBEE SWL J121 SIE V139 RICED MAD193 KEYED  |                |
| Ocala (OCF)                        | LAL   | 1030-0300      |
|                                    |   |                |

| Terminals                         | Route  | Effective<br>Times<br>(UTC) |
|-----------------------------------|--|-----------------------------|
| Orlando (MCO)                     | BAIRN GOOFY-STAR   | 1030-0300                   |
| Overwater Routes to the Northeast | (Water) A699 PERMT AR16 ILM or WOLFO AR18<br>DIW   | 1030-0300                   |
| Philadelphia (PHL)                | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO<br>CEBEE SWL RADDS VCN-STAR<br>or                                    |                             |
|                                   | ORL J53 CRG J51 SAV J55 CHS J121 SWL   | 1100 0200                   |
| Pittsburgh (PIT)                  | SWL034 RADDS VCN-STAR<br>ORL J53 CRG J51 CAE PSK EKN IHD<br>NESTO-STAR   | 1100-0300                   |
| Poughkeepsie (POU)                | (Water-Turbojets) A699 PERMT AR16 ILM KEMPR<br>SBY J79 JFK DPK HUDSON-STAR                                       |                             |
| Providence (PVD)                  | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO CEBEE SWL J174 HTO JORDN (RNAV)-STAR                                 |                             |
| Raleigh/Durham (RDU)              | (Water-Turbojets) A699 PERMT AR16 ILM BRADE-STAR   |                             |
| St. Louis (STL)                   | ORL J53 CRG J51 SAV J55 CHS J174 ILM BRADE-STAR TBIRD CTY J151 VISQA QBALL-STAR or                               | 1100-0400                   |
| Springfield (CEF)                 | (/E,/G,/R,/J,/L,/O) TBIRD KPASA Q110 FEONA VUZ J151 VISQA QBALL—STAR (Water-Turbojets) A699 PERMT AR16 ILM KEMPR |                             |
| Tallahassee (TLH)                 | SBY J79 VILLS DPK DPK-STARLAL  | 1030-0300                   |
| Tampa (TPA)                       | LBV BRDGE-STAR   | 1030-0300                   |
|                                   | BRDGE BRDGE-STAR   | 1030-0300                   |
| Toronto (CVV7)                    | (GPS or DME/DME-IRU equipped) DEAKK DEAKK (RNAV)-STARor (GPS or DME/DME-IRU equipped) DEAKK DEAKK (RNAV)-STAR    | 1000-0300                   |
| Toronto (CYYZ)                    | (Water–Turbojets) A699 PERMT AR16 ILM J109<br>BUF YOUTH–STAR   |                             |
| Washington Dulles (IAD)           | (Water-GPS or DME/DME-IRU equipped) A699 PERMT AR16 ILM J109 FAK BARIN-STAR or                                   |                             |
|                                   | (Water) A699 PERMT AR16 ILM J109 FAK COATT-STAR  |                             |
|                                   | or<br>(GPS or DME/DME-IRU equipped) ORL J53 CRG<br>J51 SAV J207 RDU FAK BARIN-STAR                               |                             |
| Washington Netl (DCA)             | ORL J53 CRG J51 SAV J207 RDU FAK COATT-STAR  |                             |
| Washington Natl (DCA)             | (Water) A699 PERMT AR16 ILM J40 RIC IRONS-STARor   |                             |
|                                   | (Water-Turbojets-GPS or DME/DME-IRU equipped) A699 PERMT AR16 ILM J40 RIC OJAAY (RNAV)-STAR                      |                             |
| Westfield (BAF)                   | (Water-Turbojets) A699 PERMT AR16 ILM KEMPR<br>SBY J79 VILLS DPK DPK-STAR  |                             |
| Westhampton Beach (FOK)           | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO<br>CEBEE SWL J121 HTO  |                             |
| White Plains (HPN)                | (Water-Turbojets) A699 RAMJT AR18 DIW WETRO<br>CEBEE SWL J121 SIE BOUNO-STAR<br>or                               |                             |
|                                   | (Water-Turboprops) A699 RAMJT AR18 DIW WETRO CEBEE SWL J121 SIE V139 RICED                                       |                             |
| Wilmington (ILM)                  | RICED-STAR(Water-Turbojets) A699 PERMT AR16  |                             |

| Terminals  | Route  | Effective<br>Times<br>(UTC) |
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| Windsor Locks (BDL)  | (Water-Turbojets) PERMT A699 AR16 ILM KEMPR  | (010)                       |
| Worcester (ORH)  | SBY J179 VILLS DPK DPK-STAR<br>(Water-Turbojets) A699 PERMT AR16 ILM KEMPR                                   |                             |
|  | SBY J79 JFK DPK MAD HFD  |                             |
| PENSACOLA (PNS) Chicago O'Hare (ORD)                         | (/E/G/R/J/L/Q only) MGM RESPE GLAZR HOPAP<br>VOSTK HEVAN MZZ ROYKO (RNAV)-STAR                               | 0000–2359                   |
|  | or<br>(non-advanced RNAV only) MGM RESPE GLAZR<br>HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI<br>KNOX-STAR           | 0000-2359                   |
| Houston (HOU)  | (GPS or DME/DME-IRU equipped) ROMMY HRV COLUMBIA (RNAV)-STAR   | 1000-0300                   |
|  | or   |                             |
| Houston (IAH)  | (Non-advanced NAV only) SJI AEX DAS-STAR (GPS or DME/DME-IRU equipped) ROMMY HRV                             | 1000-0300                   |
|  | WOLDE (RNAV)-STARor  | 1000-0300                   |
|  | (Non-advanced NAV only) SJI AEX DAS-STAR   | 1000-0300                   |
| Atlanta (ATL)  | (if unable FL370 by CVIKK) JOSES A315 ZIN FLL ORL CRG SINCA-STAR   |                             |
|  | ALBBE A636 ZIN FLL ORL CRG CANUK<br>(RNAV)-STAR  |                             |
|  | or (if unable FL370 by CVIKK) ALBBE A636 ZIN FLL ORL CRG SINCA-STAR  |                             |
|  | or<br>(if unable FL370 by CVIKK) JOSES A315 ZIN FLL  |                             |
| Kennedy (JFK)  | ORL CRG CANUK (RNAV)-STAR<br>BOTES G444 GTK M594 CERDA LUCTI L454<br>OWENZ CAMRN                             |                             |
|  | or<br>BOTES G444 GTK M594 CERDA L453 AZEZU   |                             |
|  | BERGH L454 OWENZ CAMRN   |                             |
|  | BOTES G444 GTK L452 OXANA AR8 ECG ORF  |                             |
|  | J121 SIE CAMRN-STARor  |                             |
|  | JOSES A315 ZIN A756 DUKKY A555 ZQA AR3   |                             |
|  | PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR  |                             |
| Newark (EWR)   | ALBBE M594 CERDA LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO  |                             |
|  | or ALBBE M594 GTK L452 OXANA AR8 ECG FAK DYLIN-STAR  |                             |
|  | ALBBE M594 GTK L452 OXANA AR8 ECG FAK PHLBO (RNAV)-STAR  |                             |
| RALEIGH-DURHAM (RDU)   | , ,  |                             |
| Albany (ALB)   | TYI J79 SBY J79 JOANI LGA LGA055 V487 V130<br>PACKK-DP AZELL CAE J4 IRQ SINCA-STAR                           | 1100-0400<br>1100-0400      |
| Addition (ATE)   | or (RNAV only) PACKK-DP AZELL CAE J4 IRQ CANUK   | 1100-0400                   |
| Poston (POS)   | RNAV-STAR  | 1100-0400                   |
| Boston (BOS)<br>Chicago Midway (MDW)<br>Chicago O'Hare (ORD) | TYI J79 JFK ORW-STAR<br>PACKK-DP AZELL PSK HVQ FWA GOSHEN-STAR<br>(/E/G/R/J/L/Q only) PACKK-DP AZELL HMV FLM | 1100-0400                   |
|  | HEVAN MZZ ROYKO (RNAV)-STAR  | 1100-0400                   |
|  | or<br>(non-advanced RNAV only) PACKK-DP AZELL HMV<br>FLM HEVAN MZZ MZZ344/33 OXI KNOX-STAR .                 | 1100-0400                   |

| Terminals  | Route   | Times<br>(UTC)                      |
|--|---|-------------------------------------|
| Cincinnati (CVG)                                 | (RNAV only) HMV JAKIE (RNAV)-STAR   | (/                                  |
| Columbia (CAE)                                   | (all others) HMV HARDU-STAR   | 1100-0400<br>1100-0400              |
|  | or (Water-Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CLB BAHAA AR21 CRANS FISEL (RNAV)-STAR or (Turbojets) TARL-DP CHS J79 OMN GISSH-STAR .   |                                     |
|  | or<br>(Water-Turbojets) TARL-DP CLB BAHAA AR21<br>CRANS HIILL FATHR GISSH-STAR  |                                     |
|  | or<br>(Turboprops) TARL-DP CHS J79 OMN MLB<br>BLUFI-STAR  |                                     |
|  | or (Water-Turboprops-GPS or DME/DME-IRU equipped) TARL-DP CLB BAHAA AR21 CRANS FISEL (RNAV)-STAR  |                                     |
| Houston (HOU)                                    | or (Water-Turboprops) TARL-DP CLB BAHAA AR21 CRANS HIILL FATHR GISSH-STAR(GPS or DME/DME-IRU equipped) VUZ JAN AEX ROKIT (RNAV)-STAR  |                                     |
| Houston (IAH)                                    | (Non-advanced NAV only) VUZ JAN AEX DAS-STAR (Turbojets-GPS or DME/DME-IRU equipped) VUZ JAN AEX TXMEX (RNAV)-STAR  |                                     |
| Kennedy (JFK)<br>La Guardia (LGA)<br>Miami (MIA) | or (Non-advanced NAV only) VUZ JAN AEX DAS-STAR   | 1100-0400                           |
|  | or (Water-Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CLB SEELO AR22 JORAY HILEY (RNAV)-STAR or (Turbojets) TARL-DP CHS J79 OMN ANNEY-STAR.  |                                     |
|  | or<br>(Water-Turbojets) TARL-DP CLB SEELO AR22<br>JORAY OSOGY ENVOY YOSSI MILSY BOYUR<br>HILEY KAINS  |                                     |
| Newark (EWR)                                     | (Turboprops) TARL-DP CHS J79 OMN ANNEY-STAR LVL FAK DYLIN-STAR or   | 1100-0300                           |
| Newburgh (SWF)Orlando (MCO)                      | (GPS or DME/DME-IRU equipped) LVL FAK PHLBO (RNAV)-STAR  TYI J79 JFK BDR V91 STUBY (Turbojets) TARL-DP CHS J79 OMN BITHO-STAR   | 1100-0300<br>1100-0300<br>1100-0400 |
| Orlando (ORL)                                    | or (GPS or DME/DME-IRU equipped) TARHEEL-DP CHS J79 OMN CWRLD (RNAV)-STAR (Turbojets) TARL-DP CHS J79 OMN CORLL-STAR. (Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CHS J79 OMN FRWAY (RNAV)-STAR | 1100–0400<br>1100–0400              |

| Terminals                     | Route  | Effective<br>Times<br>(UTC) |
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|                               | Or<br>(Turboiote) TARL DR CHS 170 OMN THYYL STAR   |                             |
|                               | (Turbojets) TARL-DP CHS J79 OMN TUXXI-STAR or  |                             |
|                               | (Water-Turbojets-GPS or DME/DME-IRU equipped) TARL-DP CLB SEELO AR19 AYBID CAYSL (RNAV)-STAR |                             |
|                               | or<br>(Water–Turbojets) TARL–DP CLB SEELO AR19   |                             |
| Philadelphia (PHL)            | AYBID MIMMI NEUBE SWOMP SANZZ CAYSL V3 FAK DPNT-STAR   | 1100-0400<br>1100-0400      |
| Pittsburgh (PIT)              | PACK-DP ROA EKN IHD NESTO-STAR   | 1100-0400                   |
| Sarasota (SRQ)                | FAY-DP FAY CAE J75 TAY J85 GNV LAL<br>TARL-DP CHS  | 1100-0400<br>1100-0400      |
| Tampa (TPA)                   | FAY-DP FAY CAE J75 TAY LZARD-STARor  | 1100-0400                   |
|                               | (GPS or DME/DME-IRU equipped) FAY-DP FAY CAE J75 TAY DADES (RNAV)-STAR                       | 1100-0400                   |
| Windsor Locks (BDL)           | TYI J79 SBY J79 JFK DPK-STAR   | 1100-0400                   |
| SAN JUAN (TJSJ) Atlanta (ATL) | HARDE A555 ZQA FLL ORL CRG CANUK<br>(RNAV)-STAR  |                             |
|                               | or HARDE A555 ZQA FLL ORL CRG SINCA-STAR   |                             |
|                               | CONCH R507   |                             |
| Atlantic City (ACY)           | ELMUC L451 LETON L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE                           |                             |
| Baltimore (BWI)               | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC NOTTINGHAM-STAR                                |                             |
|                               | or<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8  |                             |
|                               | ECG RIC RAVNN (RNAV)-STAR  |                             |
|                               | or ELMUC L451 OLDEY AR3 CLB ILM J40 RIC NOTTINGHAM-STAR                                      |                             |
|                               | OF   |                             |
|                               | ELMUC L451 OLDEY AR3 CLB ILM J40 RIC RAVNN (RNAV)-STAR                                       |                             |
| Bedford (BED)                 | ELMUC L454 LUCTI OWENZ HTO ORW GRAYM-STAR  |                             |
|                               | or<br>ELMUC L451 CERDA L453 AZEZU BERGH OWENZ  |                             |
|                               | HTO ORW GRAYM-STAR   |                             |
|                               | or<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8  |                             |
|                               | ECG DIW WETRO CEBEE SWL J174 HTO ORW   |                             |
|                               | GRAYM-STAR   |                             |
|                               | ELMUC L451 LETON L451 OLDEY AR3 CLB DIW<br>WETRO CEBEE SWL J174 HTO ORW                      |                             |
| Charlotte (CLT)               | GRAYM-STAR<br>ELMUC L451 OLDEY CHS CHESTERFIELD-STAR<br>or                                   |                             |
| Cincinnati (CVG)              | ELMUC L451 OLDEY CHS HUSTN (RNAV)-STAR   |                             |
| Circiniau (CVG)               | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG VXV JAKIE (RNAV)-STAR                              |                             |
|                               | ELMUC L451 OLDEY METTA CHS SPA CAE VXV   |                             |
| Cleveland (CLE)               | JAKIE (RNAV)-STAR<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8                                   |                             |
|                               | ECG HVQ TVT KEATN-STAR   |                             |
|                               | ELMUC L451 OLDEY METTA CHS CAE HVQ TVT   |                             |
| Dayton (DAY)                  | KEATN-STAR<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8  |                             |
|                               | ECG VXV J43 FLM KEKEE-STAR   |                             |

| Terminals          | Route   |
|--------------------|---|
|                    | ELMUC L451 OLDEY METTA CHS CAE VXV J43 FLM KEKEE-STAR                     |
| Detroit (DTW)      | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HNN WEEDA-STAR                  |
|                    | or<br>ELMUC L451 OLDEY METTA CHS SPA HNN                                  |
| Indianapolis (IND) | WEEDA-STAR ELMUC L451 CERDA LNHOM L452 OXANA AR8                          |
|                    | or ELMUC L451 OLDEY METTA CHS SPA CAE VXV                                 |
| Kennedy (JFK)      | J89 IIU V51 DECEE DECEE-STAR<br>ELMUC L454 LUCTI L454 OWENZ CAMRN         |
|                    | or<br>ELMUC L453 LAMER L453 AZEZU BERGH L454                              |
|                    | OWENZ CAMRN  or  ELMUC L451 OLDEY AR3 PANAL DIW WETRO                     |
|                    | CEBEE SWL J121 SIE CAMRN-STAR   |
| Louisville (SDF)   | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG HCH DARBY-STAR                  |
|                    | or ELMUC L451 OLDEY METTA CHS SPA HCH DARBY-STAR                          |
| Newark (EWR)       | ELMUC L451 OLDEY AR3 CLB ILM J109 FAK DYLIN-STAR                          |
|                    | or  |
|                    | ELMUC L451 OLDEY AR3 CLB ILM J109 FAK PHLBO (RNAV)-STAR                   |
|                    | ELMUC L454 LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO             |
|                    | ELMUC L451 CERDA L453 AZEZU BERGH L454                                    |
| Ottawa (CYOW)      | OWENZ CYN GXU RBV V249 METRO ELMUC L454 LUCTI L454 JFK SYR J599           |
|                    | or ELMUC L451 CERDA L453 AZEZU BERGH L454 JFK SYR J599                    |
|                    | or  |
|                    | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SYR J599                        |
|                    | ELMUC L451 OLDEY AR3 CLB ILM SYR J599                                     |
| Providence (PVD)   | ELMUC L454 LUCTI L454 BERGH OWENZ HTO JORDN                               |
|                    | or<br>ELMUC L451 CERDA L453 AZEZU BERGH OWENZ                             |
|                    | HTO JORDN   |
|                    | or ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG SWL J174 HTO JORDN           |
|                    | or<br>ELMUC L451 OLDEY AR3 PANAL DIW SWL J174                             |
| Quebec (CYQB)      | HTO JORDN ELMUC L454 LUCTI L454 JFK PLB J560 or                           |
|                    | ELMUC L451 CERDA L453 AZEZU BERGH L454<br>JFK PLB J560                    |
|                    | or<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8                               |
|                    | ECG ORF SBY J209 VILLS SAX J6 PLB J560 or                                 |
|                    | ELMUC L451 OLDEY AR3 PANAL DIW J174 ORF<br>SBY J209 VILLS SAX J6 PLB J560 |

| <b>T</b>                                 |  |
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| Terminals                                | Route  |
| Raleigh-Durham (RDU)<br>Teterboro (TEB)  | ELMUC L451 OLDEY ILM BRADE-STAR<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8         |
| Tetelbolo (TEB)                          | ECG FAK JAIKE (RNAV)-STAR  |
|  | or<br>ELMUC L451 CERDA L453 AZEZU BERGH L454                                     |
|  | OWENZ  |
|  | ELMUC L454 LUCTI L454 OWENZ  |
|  | or<br>ELMUC L451 OLDEY AR3 CLB ILM J109 FAK                                      |
| Washington (DCA)                         | JAIKE (RNAV)-STAR<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8<br>ECG RIC IRONS-STAR |
|  | or   |
|  | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG RIC OJAAY (RNAV)-STAR                  |
|  | or<br>ELMUC L451 OLDEY AR3 CLB ILM J40 RIC                                       |
|  | IRONS-STAR   |
|  | or<br>ELMUC L451 OLDEY AR3 CLB ILM J40 RIC OJAAY                                 |
|  | (RNAV)-STAR  |
| Washington (IAD)                         | ELMUC L451 CERDA LNHOM L452 OXANA AR8 ECG FAK BARIN (RNAV)-STAR                  |
|  | or<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8                                      |
|  | ECG FAK COATT-STAR   |
|  | or<br>ELMUC L451 OLDEY AR3 CLB ILM J109 FAK                                      |
|  | BARIN (RNAV)-STAR  |
|  | ELMUC L451 OLDEY AR3 CLB ILM J109 FAK  |
| White Plains (HPN)                       | COATT-STAR<br>ELMUC L454 LUCTI L454 OWENZ  |
|  | or<br>ELMUC L451 CERDA L453 AZEZU BERGH L454                                     |
|  | OWENZ  |
|  | or<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8                                      |
|  | ECG ORF J121 SIE BOUNO-STAR  |
|  | or<br>ELMUC L451 OLDEY ECG ORF J121 SIE  |
|  | BOUNO-STAR   |
| Winsor Locks (BDL)                       | ELMUC L454 LUCTI L454 JFK DBK DEER PARK-STAR                                     |
|  | or   |
|  | ELMUC L451 LETON L451 OLDEY AR3 CLB ILM<br>KEMPR SBY J79 JFK DPK DEER PARK-STAR  |
|  | or<br>ELMUC L451 CERDA LNHOM L452 OXANA AR8                                      |
|  | ECG SBY J79 JFK DPK DEER PARK-STAR   |
| Winnipeg (CYWG)                          | ELMUC L451 CERDA LNHOM L452 OXANA AR8  |
|  | ecg IIU J99 BAE MSP  |
|  | ELMUC L451 OLDEY METTA CHS VXV J89 IIU J99                                       |
| SANTO DOMINGO (MPSP)                     | BAE MSP  |
| SANTO DOMINGO (MDSD) Altantic City (ACY) | BESAS L464 CERDA L451 OLDEY AR3 CLB DIW  |
|  | WETRO CEBEE SWL J121 SIE   |
|  | BESAS L464 CERDA LNHOM L452 OXANA AR8  |
|  | ECG SWL J121 SIE   |
|  | or<br>JUELE L463 NUCAR AR3 CLB DIW WETRO CEBEE                                   |
|  | SWL J121 SIE   |

| Terminals       | Route   |
|-----------------|---|
| Baltimore (BWI) | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC NOTTINGHAM-STAR                                     |
|                 | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC RAVNN (RNAV)-STAR                                   |
|                 | BESAS L464 CERDA L451 OLDEY AR3 CBL ILM<br>J40 RIC NOTTINGHAM-STAR                                |
|                 | or<br>BESAS L464 CERDA L451 OLDEY AR3 CBL ILM<br>J40 RIC RAVNN (RNAV)-STAR                        |
|                 | or<br>JUELE L463 NUCAR AR3 CLB ILM J40 RIC<br>NOTTINGHAM-STAR                                     |
|                 | or<br>JUELE L463 NUCAR AR3 CLB ILM J40 RIC RAVNN<br>(RNAV)-STAR                                   |
| Bangor (BGR)    | BESAS L464 CERDA LUCTI L454 BERGH HTO LFV J79   |
|                 | BESAS L464 LAMER L453 AZEZU BERGH OWENZ<br>HTO LFV J79  |
|                 | or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK HTO LFV                                  |
| Bedford (BED)   | BESAS L464 CERDA L451 OLDEY AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR                   |
|                 | or<br>BESAS L464 CERDA LNHOM L452 OXANA AR8<br>ECG DIW WETRO CEBEE SWL J174 HTO ORW<br>GRAYM-STAR |
|                 | or<br>BESAS L464 LAMER L453 AZEZU BERGH OWENZ<br>HTO ORW GRAYM-STAR                               |
|                 | or<br>BESAS L464 CERDA LUCTI L454 BERGH OWENZ<br>HTO ORW GRAYM-STAR                               |
|                 | or JUELE L463 NUCAR AR3 CLB DIW WETRO CEBEE SWL J174 HTO ORW GRAYM-STAR                           |
| Boston (BOS)    | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>KEMPR SBY J79 JFK NORWICH-STAR                         |
|                 | or<br>BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>KEMPR SBY J49 JFK INNDY (RNAV)-STAR              |
|                 | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK INNDY (RNAV)-STAR                           |
|                 | or<br>BESAS L464 CERDA LNHOM L452 OXANA AR8<br>ECG SBY J79 JFK NORWICH-STAR                       |
|                 | or<br>BESAS L464 LAMER L453 AZEZU BERGH L454<br>JFK NORWICH-STAR                                  |
|                 | or<br>BESAS L464 LAMER L453 AZEZU BERGH L454<br>JFK INNDY (RNAV)-STAR                             |
|                 | or JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY J79 JFK NORWICH-STAR                                    |
| Charlotte (CLT) | BESAS L464 CERDA L451 OLDEY CHS CHESTERFIELD-STAR   |
|                 | or<br>BESAS L464 CERDA L451 OLDEY CHS HUSTN<br>(RNAV)-STAR  |

| Terminals            | Route  |
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|                      | or JUELE L463 NUCAR AR3 OLDEY CHS CHESTERFIELD-STAR                                      |
|                      | or<br>JUELE L463 NUCAR AR3 OLDEY CHS HUSTN   |
| Chicago O'Hare (ORD) | (RNAV)-STAR  JUELE L463 NUCAR AR3 OLDEY AR4 CH SPA HMV FLM J24 BIGXX ROYKO (RNAV)-STAR   |
| Cincinnati (CVG)     | BESAS L464 CERDA L451 OLDEY METTA CHS SPA HMV JAKIE (RNAV)-STAR                          |
|                      | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK J24 HVQ HNN JAVIT-STAR                     |
|                      | JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA   |
| Cleveland (CLE)      | HMV JAKIE (RNAV)-STAR  BESAS L464 CERDA L451 OLDEY METTA CHS                             |
|                      | or   |
|                      | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HVQ TVT KEATN-STAR                             |
|                      | or   |
|                      | JUELE L463 NUCAR AR3 OLDEY METTA CHS CAE HVQ TVT KEATN-STAR                              |
| Dayton (DAY)         | BESAS L464 CERDA L451 OLDEY METTA CHS CAE SPA HMV FLM KEKEE-STAR                         |
|                      | or   |
|                      | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK J24 HVQ HNN                                |
|                      | or<br>JUELE L463 NUCAR AR3 OLDEY METTA CHS CAE   |
|                      | SPA HMV FLM KEKEE–STAR   |
| Detroit (DTW)        | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HNN WEEDA-STAR                                 |
|                      | or   |
|                      | BESAS L464 CERDA L451 OLDEY METTA CHS SPA HNN WEEDA-STAR                                 |
|                      | or<br>JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA   |
| Indianapolis (IND)   | HNN WEEDA-STAR<br>BESAS L464 CERDA LNHOM L452 OXANA AR8                                  |
|                      | ECG IIU V51 DECEE DECEE-STAR   |
|                      | or<br>BESAS L464 CERDA L451 OLDEY METTA CHS<br>SPA CAE VXV J89 IIU V51 DECEE DECEE-STAR. |
|                      | or   |
|                      | JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA<br>CAE VXV J89 IIU V51 DECEE DECEE-STAR         |
| Kennedy (JFK)        | BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ CAMRN                                       |
|                      | BESAS L464 CERDA LNHOM L452 OXANA AR8  |
|                      | ecg ORF J121 SIE CAMRN-STAR or   |
|                      | BESAS L464 CERDA LUCTI L454 OWENZ CAMRN .  |
|                      | BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW WETRO CEBEE SWL J121 SIE CAMRN-STAR            |
|                      | JUELE L463 NUCAR AR3 PANAL DIW WETRO   |
| La Guardia (LGA)     | CEBEE SWL J121 SIE CAMRN-STAR<br>BESAS L464 LAMER L453 AZEZU BERGH L454                  |
|                      | OWENZ CAMRN  |
|                      | or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HPW J191 PXT KORRY-STAR                     |

| Terminals               | Route  |
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|                         | or<br>BESAS L464 CERDA LUCTI L454 OWENZ CAMRN .                                  |
|                         | or<br>BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>J40 TYI HPW J191 PXT KORRY-STAR |
|                         | or<br>JUELE L463 NUCAR AR3 CLB ILM J40 TYI HPW<br>J191 PXT KORRY-STAR            |
| Louisville (SDF)        | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG HCH DARBY-STAR                         |
|                         | BESAS L464 CERDA L451 OLDEY METTA CHS<br>SPA HCH DARBY-STAR                      |
|                         | or JUELE L463 NUCAR AR3 OLDEY METTA CHS SPA HCH DARBY-STAR                       |
| Montreal (CYMX), (CYUL) | BESAS L464 LAMER L453 AZEZU BERGH L454   |
|                         | JFK J37 ALB J6 PLB PLATTSBURGH-STAR<br>or  |
|                         | JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY   |
| Maurinkaus (MANII)      | J79 JFK J37 ALB J6 PLB PLATTSBURGH-STAR  |
| Morristown (MMU)        | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK JAIKE (RNAV)-STAR                  |
|                         | or<br>BESAS L464 LAMER L453 AZEZU BERGH L454<br>OWENZ                            |
|                         | or<br>BESAS L464 CERDA LUCTI L454 OWENZ<br>or                                    |
|                         | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK JAIKE (RNAV)-STAR               |
|                         | JUELE L463 NUCAR AR3 CLB ILM J109 FAK JAIKE (RNAV)-STAR                          |
| Newark (EWR)            | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG FAK DYLIN-STAR                         |
|                         | Or<br>BESAS L464 CERDA LNHOM L452 OXANA AR8                                      |
|                         | ecg fak Phlbo (RNAV)-STARor  |
|                         | BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZ CYN GXU RBV V249 METRO              |
|                         | or   |
|                         | BESAS L464 CERDA LUCTI L454 BERGH L454 OWENZ CYN GXU RBV V249 METRO or           |
|                         | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>J109 FAK DYLIN-STAR                   |
|                         | or<br>BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>J109 FAK PHLBO (RNAV)-STAR      |
|                         | or<br>JUELE L463 NUCAR AR3 CLB ILM J109 FAK<br>DYLIN-STAR                        |
|                         | or JUELE L463 NUCAR AR3 CLB ILM J109 FAK PHLBO (RNAV)-STAR                       |
| Ottawa (CYOW)           | BESAS L464 CERDA LUCTI L454 JFK SYR J599   |
|                         | BESAS L464 LAMER L453 AZEZU BERGH L454<br>JFK SYR J599                           |
|                         | or BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SYR J599                            |
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| Terminals            | Route   |
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|                      | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>SYR J599or   |
| Philadelphia (PHL)   | JUELE L463 NUCAR AR3 CLB ILM SYR J599<br>BESAS L464 CERDA LNHOM L452 OXANA AR8<br>ECG SWL RADDS CEDAR LAKE-STAR |
|                      | BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW<br>WETRO CEBEE SWL RADDS CEDAR LAKE-STAR                              |
| Providence (PVD)     | BESAS L464 LAMER L453 AZEZU B24 SIE<br>BESAS L464 CERDA LUCTI L454 BERGH OWENZ<br>HTO JORDN                     |
|                      | or<br>BESAS L464 LAMER L453 AZEZU BERGH OWENZ<br>HTO JORDN  |
|                      | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SWL J174 HTO JORDN  |
|                      | BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW<br>SWL J174 HTO JORDN   |
|                      | or<br>JUELE L463 NUCAR AR3 PANAL DIW SWL J174   |
| Quebec (CYQB)        | HTO JORDNBESAS L464 CERDA LUCTI L454 JFK PLB J560   |
|                      | or<br>BESAS L464 LAMER L453 AZEZU BERGH L454<br>JFK PLB J560  |
|                      | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG ORF SBY J209 VILLS SAX J6 PLB J560                                    |
|                      | BESAS L464 CERDA L451 OLDEY AR3 PANAL DIW<br>J174 ORF SBY J209 VILLS SAX J6 PLB J560                            |
|                      | JUELE L463 NUCAR AR3 PANAL DIW J174 ORF   |
| Raleigh/Durham (RDU) | SBY J209 VILLS SAX J6 PLB J560<br>BESAS L464 CERDA L451 OLDEY ILM   |
|                      | BRADE-STARor  |
| Teterboro (TEB)      | JUELE L463 NUCAR ILM BRADE-STAR<br>BESAS L464 CERDA LNHOM L452 OXANA AR8<br>ECG FAK JAIKE (RNAV)-STAR           |
|                      | or  |
|                      | BESAS L464 LAMER L453 AZEZU BERGH L454 OWENZor  |
|                      | BESAS L464 CERDA LUCTI L454 OWENZ   |
|                      | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM<br>J109 FAK JAIKE (RNAV)-STAR   |
|                      | or<br>JUELE L463 NUCAR AR3 CLB ILM J109 FAK JAIKE   |
| Toronto (CYYZ)       | (RNAV)-STARBESAS L464 LAMER L453 AZEZU BERGH L454   |
|                      | JFK J63 HUO CFB J95 BUF YOUTH (RNAV)-STAR   |
|                      | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM   |
|                      | J109 BUF YOUTH (RNAV)-STARor  |
|                      | JUELE L463 NUCAR AR3 CLB ILM J109 BUF<br>YOUTH (RNAV)-STAR  |
| Washington (DCA)     | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC IRONS-STAR  |

|                               |  | Times     |
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| Terminals                     | Route  | (UTC)     |
|                               | or   |           |
|                               | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG RIC OJAAY (RNAV)-STAR        |           |
|                               | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM                                |           |
|                               | J40 RIC IRONS-STAR   |           |
|                               | Or   |           |
|                               | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J40 RIC OJAAY (RNAV)-STAR      |           |
|                               | or   |           |
|                               | JUELE L463 NUCAR AR3 CLB ILM J40 RIC                                   |           |
|                               | IRONS-STARor   |           |
|                               | JUELE L463 NUCAR AR3 CLB ILM J40 RIC OJAAY                             |           |
|                               | (RNAV)-STAR  |           |
| Washington (IAD)              | BESAS L464 CERDA LNHOM L452 OXANA ECG                                  |           |
|                               | FAK BARIN (RNAV)-STAR  |           |
|                               | BESAS L464 CERDA LNHOM L452 OXANA ECG                                  |           |
|                               | FAK COATT-STAR   |           |
|                               | Or   |           |
|                               | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM J109 FAK BARIN (RNAV)-STAR     |           |
|                               | or   |           |
|                               | BESAS L464 CERDA L451 OLDEY AR3 CLB ILM                                |           |
|                               | J109 FAK COATT-STAR  |           |
|                               | or<br>JUELE L463 NUCAR AR3 CLB ILM J109 FAK                            |           |
|                               | BARIN (RNAV)-STAR  |           |
|                               | or   |           |
|                               | JUELE L463 NUCAR AR3 CLB ILM J109 FAK                                  |           |
| White Plains (HPN)            | COATT-STARBESAS L464 CERDA L451 OLDEY ECG ORF J121                     |           |
| ,                             | SIE BOUNO-STAR   |           |
|                               | Or   |           |
|                               | JUELE L463 NUCAR AR3 PANAL DIW WETRO CEBEE SWL J121 SIE BOUNO-STAR     |           |
|                               | or   |           |
|                               | BESAS L464 CERDA LUCTI L454 OWENZ                                      |           |
|                               | or<br>BESAS L464 LAMER L453 AZEZU BERGH L454                           |           |
|                               | OWENZ  |           |
|                               | or   |           |
|                               | BESAS L464 CERDA LNHOM L452 OXANA AR8                                  |           |
| Windsor Locks (BDL)           | ECG ORF J121 SIE BOUNO-STAR<br>BESAS L464 CERDA L451 OLDEY AR3 CLB ILM |           |
| ,                             | KEMPR SBY J79 JFK DPK DPK-STAR   |           |
|                               | or   |           |
|                               | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG SBY J79 JFK DPK DPK-STAR     |           |
|                               | or   |           |
|                               | JUELE L463 NUCAR AR3 CLB ILM KEMPR SBY                                 |           |
| Winning (OVINO)               | J79 JFK DPK DPK-STAR   |           |
| Winnipeg (CYWG)               | BESAS L464 CERDA LNHOM L452 OXANA AR8 ECG IIU J99 BAE MSP              |           |
|                               | or   |           |
|                               | BESAS L464 CERDA L451 OLDEY METTA CHS                                  |           |
|                               | VXV J89 IIU J99 BAE MSP  |           |
|                               | JUELE L463 NUCAR AR3 OLDEY METTA CHS VXV                               |           |
|                               | J89 IIU J99 BAE MSP  |           |
| SARASOTA-BRADENTON AREA (SRQ) | TAV IZE OAE IEO DIO OTT OTAD   | 4400 0000 |
| Baltimore (BWI)               | TAY J75 CAE J52 RIC OTT-STAR   | 1100-0300 |
|                               | (GPS or DME/DME-IRU equipped) TAY J75 CAE                              |           |
|                               | J52 RIC RAVNN (RNAV)-STAR  | 1100-0300 |

| erminals Charlotte (CLT)                                     | Route TAY J85 IRQ UNARM-STAR   | Times<br>(UTC) |
|--|--|----------------|
| Sharlotte (SE1)  | or   |                |
|  | (Turbojets-GPS or DME/DME IRU equipped) TAY J85 IRQ ADENA (RNAV)-STAR          |                |
| Chicago Midway (MDW)   | (/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK                                    |                |
| ,  | FISSK (RNAV)-STAR  | 1100-0300      |
|  | (non-advanced RNAV only) CTY J91 ATL J89 IIU                                   |                |
| Objects O'llers (ODD)  | OKK V285 CLEFT OXI CGT   | 1100-0300      |
| Chicago O'Hare (ORD)   | (/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR<br>HOPAP VOSTK HEVAN MZZ ROYKO     |                |
|  | (RNAV)-STARor  | 0000–2359      |
|  | (non-advanced RNAV only) CTY J91 ATL CADIT                                     |                |
|  | GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33  | 0000 0050      |
| Cincinnati (CVG)   | OXI KNOX-STAR(RNAV only) CTY J91 VXV JAKIE (RNAV)-STAR                         | 0000–2359      |
| monnaci (ova)  | or   |                |
|  | (all others) CTY J91 VXV HARDU-STAR  |                |
| Cleveland (CLE)  | PIE J119 TAY J85 TVT040 KEATN KEATN-STAR                                       |                |
| columbus (CMH)<br>Pallas/Ft. Worth (DFW)                     | PIE J119 TAY J85 HVQ HNN BREMN-STAR<br>(Water) SRQ Q100 REDFN Q105 HRV J58 AEX |                |
|  | CQY  |                |
| enver (DEN)  | (Water) Q100 REDFN Q105 HRV J58 SPS J168<br>LAA QUAIL-STAR                     |                |
| Petroit/Wayne (DTW)  | PIE TAY J85 SPA HNN WEEDA-STAR   |                |
| etroit Satellites:<br>Ann Arbor (ARB), Pontiac (PTK), Willow |  |                |
| un (YIP)   | PIE J119 TAY J85 IRQ J99 VXV J43 FLM DQN                                       |                |
|  | CRUXX-STAR   |                |
| Young (DET)  | PIE J119 TAY J85 DJB LLEEO-STAR  | 4000 0000      |
| ort Lauderdale (FLL)   | (all others) RSW FORTL–STAR  | 1030-0300      |
|  | (GPS or DME/DME-IRU equipped) RSW FORTL  |                |
|  | JINGL (RNAV)-STAR  |                |
| ouston (HOU)   | (GPS or DME/DME-IRU equipped) SRQ Q100 LEV                                     |                |
|  | COLUMBIA (RNAV)-STAR   |                |
|  | or<br>(GPS or DME/DME-IRU equipped) SZW J2 SJI                                 |                |
|  | COLUMBIA (RNAV)-STAR   |                |
|  | or   |                |
|  | (Non-advanced NAV only) SZW J2 CEW J50 AEX DAS-STAR                            |                |
| louston (IAH)  | (GPS or DME/DME-IRU equipped) SRQ Q100 LEV                                     |                |
| . ,  | WOLDE (RNAV)-STAR  |                |
|  | Or   |                |
|  | (GPS or DME/DME-IRU equipped) SZW J2 SJI<br>WOLDE (RNAV)-STAR                  |                |
|  | or   |                |
|  | (Non-advanced NAV only) SZW J2 CEW J50 AEX DAS-STAR                            |                |
| ndianapolis (IND)  | CTY J91 ATL J89 IIU DECEE-STAR   |                |
| a Guardia (LGA)  | TAY J75 DUNKN J210 VAN FLO J207 RDU J55  |                |
| ouisville (LOU, SDF)   | HPW J191 PXT KORRY-STAR CTY J91 ATL HCH DARBY-STAR                             |                |
| finneapolis (MSP)  | CTY J91 ATL J89 BAE EAU-STAR   |                |
| lashville (BNA)  | CTY J91 ATL GQO VOLLS-STAR   | 1100-0300      |
| Newark (EWR)   | TAY J75 CAE J51 FAK DYLIN-STAR   | 1100-0300      |
|  | or<br>(GPS or DME/DME-IRU equipped) TAY J75 CAE                                |                |
|  | J51 FAK PHLBO (RNAV)-STAR  | 1100-0300      |
| Philadelphia (PHL)   | TAY J75 CAE J51 FAK DPNT-STAR  |                |
| Pittsburgh (PIT)   | TAY J75 CAE PSK J53 EKN IHD NESTO-STAR   | 0700 0000      |
| Windsor Locks (BDL)  | TAY J75 DUNKN J210 J79 JFK DPK DPK-STAR  | 0700–0000      |
| AVANNAH (SAV)  | CHE 170 TVI 140 DIC OTT CTAD   | 1100 0400      |
| Baltimore (BWI)  | CHS J79 TYI J40 RIC OTT-STAR   | 1100-0400      |

| Terminals Philadelphia (PHL) Washington Dulles (IAD)                            | Route CHS J121 SWL SWL SWL034 RADDS VCN-STAR J207 RDU FAK COATT-STAR or (GPS or DME/DME-IRU equipped J207 RDU FAK BARIN-STAR                           | Effective<br>Times<br>(UTC)<br>1100-0400 |
|---|--|--|
| TAMPA/ST PETERSBURG METRO AREA<br>(TPA, SPG, PIE, TPF)                          |  |  |
| Atlanta (ATL)   | SZW LGC-STAR   |  |
| Baltimore (BWI)   | (RNAV only) SZW HONIE (RNAV)-STAR<br>TAY J75 CAE J52 RIC OTT-STAR  | 1100-0400                                |
| Boston (BOS)<br>Charlotte (CLT)   | (GPS or DME/DME-IRU equipped) TAY J75 CAE J52 RIC RAVNN (RNAV)-STAR TAY J75 DUNKN J210 J79 JFK ORW-STAR TAY J85 IRQ UNARM-STAR                         | 1100-0400<br>1100-0400                   |
| Chicago Midway (MDW)  | (Turbojets-GPS or DME/DME IRU equipped) TAY J85 IRQ ADENA (RNAV)-STAR (/E/G/R/J/L/Q only) CTY J91 ATL J89 IIU OKK FISSK (RNAV)-STAR                    | 1100-0300                                |
| Chicago O'Hare (ORD)  | or (non-advanced RNAV only) CTY J91 ATL J89 IIU OKK V285 CLEFT OXI CGT(/E/G/R/J/L/Q only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK MZZ ROYKO (RNAV)-STAR or | 1100-0300<br>0000-2359                   |
| Cincinnati (CVG)  | (non-advanced RNAV only) CTY J91 ATL CADIT GLAZR HOPAP VOSTK HEVAN MZZ MZZ344/33 OXI KNOX-STAR   | 0000–2359                                |
| Cleveland Metro (CLE)   | PIE J119 TAY J85 TVT040 KEATN KEATN-STAR or  |  |
| Columbus (CMH)  | CTY J91 HNN TVT KEATN-STAR PIE J119 TAY J85 HVQ HNN BREMN-STAR or  |  |
| Denver (DEN)  | CTY J91 HNN BREMN-STAR<br>SZW J41 MEM RZC PER GCK J154 RYLIE<br>DANDD-STAR   |  |
| Detroit/Wayne (DTW)  Detroit Satellites:  Ann Arbor (ARB), Pontiac (PTK), Young | TAY J85 SPA HNN WEEDA-STAR   |  |
| (DET)   | CTY J91 VXV J43 FLM DQN CRUXX-STAR<br>CTY J91 VXV J43 FLM DQN V98 VQQ CRUXX<br>PIE J119 TAY J85 DJB LLEEO-STAR   |  |
| (HWO), Opa Locka (OPF)  | (all others) RSW FORTL-STAR  | 1030-0300                                |
| Fort Myers (RSW), (FMY)   | (GPS OR DME/DME-IRU equipped) SABEE RXXAN JINGL (RNAV)-STAR(Turbojets-GPS or DME/DME-IRU equipped) SRQ   |  |
|   | TYNEE (RNAV)-STARVRB   | 1020 0200                                |
| Fort Pierce (FPR)   | (GPS or DME/DME-IRU equipped) SIMMR REMIS<br>Q100 LEV COLUMBIA (RNAV)-STAR   | 1030-0300<br>1000-0300                   |
|   | or<br>(GPS or DME/DME-IRU equipped) SZW J2 SJI<br>COLUMBIA (RNAV)-STAR   | 1000-0300                                |
|   | (Non-advanced NAV only) SZW J2 CEW J50 AEX DAS-STAR  | 1000-0300                                |

| Terminals   | Route  | Effective<br>Times<br>(UTC) |
|---|--|-----------------------------|
| Houston (IAH)   | (GPS or DME/DME-IRU equipped) SIMMR REMIS Q100 LEV WOLDE (RNAV)-STAR       | 1000-0300                   |
|   | (GPS or DME/DME–IRU equipped) SZW J2 SJI<br>WOLDE (RNAV)–STAR              | 1000-0300                   |
|   | (Non-advanced NAV only) SZW J2 CEW J50 AEX DAS-STAR                        | 1000-0300                   |
| Indianapolis (IND)<br>Kennedy (JFK)                   | CTY J91 ATL J89 IIU DECEE-STAR<br>TAY J75 J210 J121 SIE CAMRN-STAR         |                             |
| Key West (EYW)<br>La Guardia (LGA)                    | RSW J41TAY J75 DUNKN J210 VAN FLO J207 RDU J55                             | 1030-0300                   |
| Louisville (SDF)                                      | HPW J191 PXT KORRY-STARCTY J91 ATL HCH DARBY-STAR                          | 1100-0400                   |
| Miami (MIA)   | (all others) RSW CYY CYY-STAR  | 1030-0300                   |
|   | or<br>(Turbojets-GPS or DME/DME-IRU equipped) RSW<br>CYY SSCOT (RNAV)-STAR |                             |
| Minneapolis (MSP)                                     | CTY J91 ATL J89 BAE EAU-STARCTY J91 ATL GOO VOLLS-STAR                     |                             |
| Newark (EWR)  | TAY J75 CAE J51 FAK DYLIN-STAR   | 1100-0400                   |
|   | (GPS or DME/DME-IRU equipped) TAY J75 CAE                                  |                             |
|   | J51 FAK PHLBO (RNAV)-STAR  | 1100-0400                   |
| Philadelphia (PHL)                                    | TAY J75 CAE J51 FAK DPNT-STAR  | 1100-0400                   |
| Pittsburgh (PIT)                                      | TAY J75 CAE PSK EKN IHD NESTO-STARTAY J75 CAE BUZZY-STAR                   |                             |
| Washington Dulles (IAD)                               | TAY J75 CAE J51 FAK COATT-STAR   | 1100-0400                   |
| Washington Natl (DCA)                                 | TAY J75 CAE J52 RIC IRONS-STAR   | 1100-0400                   |
| <b>5</b>  | or<br>GPS or DME/DME-IRU equipped) TAY J75 CAE                             |                             |
|   | J52 RIC OJAAY (RNAV)-STAR  | 1100-0400                   |
| West Palm Beach (PBI)                                 | (Turbojets-GPS or DME/DME-IRU equipped)                                    | 1100-0400                   |
| West I aim beach (i bi)                               | SABEE JOOOE WLACE (RNAV)–STAR  |                             |
| Windsor Locks (BDL)<br>From St Petersburg (PIE) only: | TAY J75 DUNKN J210 J79 JFK DPK DPK-STAR                                    | 0700-0000                   |
| Detroit Satellites:                                   | TAY J85 SPA HNN WEEDA-STAR   |                             |
| Ann Arbor (ARB), Pontiac (PTK) Willow                 |  |                             |
| Run (YIP)   | CTY J91 VXV J43 FLM DQN CRUXX-STAR   |                             |
| Windsor (CYQG), Young (DET)                           | PIE J119 TAY J85 DJB LLEEO-STAR  |                             |

### SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR ATLANTA HARTSFIELD INTL ARPT (JETS AND TURBOPROPS)

#### NORTHEAST

| Traffic originating Mortil and East of 1100 to M  |                                |
|---|--------------------------------|
|   | MOL WHINZ-STAR                 |
|   | or                             |
|   | MOL FLCON (RNAV)-STAR          |
|   | J145 ODF WHINZ-STAR            |
|   |                                |
|   | or                             |
|   | J145 ODF FLCON (RNAV)-STAR     |
|   | VXV WHINZ-STAR                 |
|   | or                             |
|   |                                |
|   | VXV FLCON (RNAV)-STAR          |
|   | J186 ODF WHINZ-STAR            |
|   | or                             |
|   | J186 ODF FLCON (RNAV)-STAR     |
|   | SPA ODF WHINZ-STAR             |
|   |                                |
|   | or                             |
|   | SPA ODF FLCON (RNAV)-STAR      |
| SOUTHEAST   |                                |
| Traffic originating South of a line from ATL to F | ONLL to East of ISO file:      |
|   |                                |
|   | IRQ SINCA-STAR                 |
|   | or                             |
|   | IRQ CANUK (RNAV)-STAR          |
|   | DBN SINCA-STAR                 |
|   |                                |
|   | or                             |
|   | DBN CANUK (RNAV)-STAR          |
| SOUTHWEST   |                                |
| Traffic originating West of J89 to South and W    | est of J14 file:               |
|   | MEI LGC-STAR                   |
|   |                                |
|   | or                             |
|   | MEI HONIE (RNAV)-STAR          |
|   | SZW LGC-STAR                   |
|   | or                             |
|   |                                |
|   | SZW HONIE (RNAV)-STAR          |
|   | MGM LGG-STAR                   |
|   | or                             |
|   | MGM HONIE (RNAV)-STAR          |
| NORTHWEST   | Main Horiz (Minte) Olimination |
|   |                                |
| Traffic originating West and North of J43 to No   |                                |
|   | BWG RMG-STAR                   |
|   | or                             |
|   | BWG ERLIN (RNAV)-STAR          |
|   | , ,                            |
|   | BNA RMG-STAR                   |
|   | or                             |
|   | BNA ERLIN (RNAV)-STAR          |
|   | MEM RMG-STAR                   |
|   |                                |
|   | or                             |
|   | MEM ERLIN (RNAV-STAR)          |

### SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR ATLANTA TERMINAL AREA AIRPORTS (SATELLITE AIRPORTS ONLY JETS AND TURBOPROPS)

| NORTHEAST   |   |
|---|---|
| Traffic originating North and East of a line from | n ATL to VXV to North of a line from ATL to RDU file: |
|   | J48 ODF AWSON-STAR                                    |
|   | J145 ODF AWSON-STAR                                   |
|   | VXV AWSON-STAR  |
|   | J186 ODF AWSON-STAR                                   |
|   | SPA ODF AWSON-STAR                                    |
| SOUTHEAST   |   |
| Traffic originating South of a line from ATL to F | RDU, to East of J89 file:                             |
|   | IRQ TRBOW-STAR  |
|   | DBN TRBOW-STAR  |
| SOUTHWEST   |   |
| Traffic originating West of J89 to South and W    | est of J14 file:                                      |
|   | MEI LGC MIKEE-STAR                                    |
|   | SZW LGC MIKEE-STAR                                    |
|   | MGM LGC MIKEE-STAR                                    |
| NORTHWEST   |   |
| Traffic originating West and North of a line from | m ATL to VXV to North of J14 file:                    |
|   | GOO BUNNI-STAR  |
|   | ROZ BUNNI-STAR  |
|   | •   |
| SPECIAL HIG                                       | H ALTITUDE ARRIVAL ROUTES                             |
| FOR CHA   | ARLOTTE TERMINAL AREA                                 |
| NORTHEACT   |   |
| NORTHEAST   | athers a Para Green OLT to DDU Glass                  |
| Traffic originating North and East of J53 to No   |   |
|   | LYH MAJIC-STAR  |
|   | RDU SUDSY (RNAV)-STAR                                 |
| COUTUEACT   | ROA MAJIC-STAR  |
| SOUTHEAST   |   |
| Traffic originating South of a line from CLT to F |   |
|   | FLO CTF-STAR  |
| COLITINGOT  | FLO HUSTN (RNAV)-STAR                                 |
| SOUTHWEST   | 0.51  |
| Traffic originating West of J51 to South of J11   |   |
|   | ATL ADENA (RNAV)-STAR                                 |
|   | ATL UNARM-STAR  |
|   | IRQ ADENA (RNAV)—STAR                                 |
| NORTHWEAT   | IRQ UNARM-STAR  |
| NORTHWEST   | 0.50  |
| Traffic originating West of J53 to North of J118  |   |
|   |   |
|   | VXV SHINE-STARHMV SHINE-STAR                          |

### SPECIAL HIGH ALTITUDE ARRIVAL ROUTES FOR MEMPHIS TERMINAL AREA

| Traffic entering Memphis ARTCC north of J118:          |   |           |
|--|---|-----------|
|  | BNA WILDER-STAR   |           |
|  | BWG WILDER-STAR   |           |
|  | PXV WILDER-STAR   |           |
| NORTHWEST  |   |           |
| Traffic entering Memphis ARTCC on or west of J         | 35:   |           |
|  | FAM GQE-STAR  |           |
|  | ARG GQE-STAR  |           |
|  | SGF ARG GQE-STAR  |           |
|  | RZC GQE-STAR  |           |
|  | FSM GQE-STAR  | 1100-0200 |
| SOUTHEAST  |   |           |
| Traffic entering Memphis ARTCC south of J118:          |   |           |
|  | VUZ HLI-STAR (MONDAY-FRIDAY)  |           |
| SOUTHWEST  | GQO HLI-STAR  | 1100-0200 |
| Traffic entering Memphis ARTCC on or south of          | 16:   |           |
|  | LIT MARVELL-STAR  |           |
|  | TXK MARVELL-STAR  |           |
|  | ELD MARVELL-STAR  |           |
|  | SQS MARVELL-STAR  |           |
|  |   |           |
| SPECIAL HIGH A   | LTITUDE DIRECTIONAL ROUTES  |           |
|  |   | Effective |
|  |   | Times     |
|  |   |           |
| Torminals  | Pouto   |           |
| Terminals  | Route   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound     | Caribbean flights originating from Santo Domingo  | (UTC)     |
|  | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound     | Caribbean flights originating from Santo Domingo  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound     | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound     | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)-STAR   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound     | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STAR   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound     | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STARor<br>JUELE L463 BTLER A555 ZQA 054V CAREY<br>DEKAL DEKAL—STAR         | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STAR   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STARor<br>JUELE L463 BTLER A555 ZQA 054V CAREY<br>DEKAL DEKAL—STAR         | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STARor<br>JUELE L463 BTLER A555 ZQA 054V CAREY<br>DEKAL DEKAL—STAR         | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STARor<br>or<br>JUELE L463 BTLER A555 ZQA 054V CAREY<br>DEKAL DEKAL—STARor | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STAR   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo<br>(Advanced RNAV equipped) JUELE L463<br>BTLER A555 ZQA 054V CAREY DEKAL<br>WAVUN (RNAV)—STAR   | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |
| Traffic entering Miami Center (ZMA) for northbound FLL | Caribbean flights originating from Santo Domingo (Advanced RNAV equipped) JUELE L463 BTLER A555 ZQA 054V CAREY DEKAL WAVUN (RNAV)—STAR  | (UTC)     |

RETAK A636 ZIN A315 HODGY ZQA 054V.....

|   | Route   | Times<br>(UTC)                      |
|---|---|-------------------------------------|
| Traffic overflying Atlanta Center originating north a   | ond east of a line from TYS to LAL (except DAY and PSK CAE SAV OMN BITHO-STAR | d CVG) for ZTL to MCO:<br>1100-0400 |
|   | J83 SPA CAE SAV OMN BITHO-STAR  | 1100-0400                           |
|   | (GPS or DME/DME-equipped) PSK CAE SAV<br>OMN CWRLD (RNAV)-STAR                | 1100-0400                           |
|   | (GPS or DME/DME-IRU equipped) J83 SPA<br>CAE SAV OMN CWRLD (RNAV)-STAR        | 1100-0400                           |
| Traffic overflying Atlanta Center Eastbound origina   | ting South of a line from DFW to JFK:   |                                     |
| BDL   | GRD J209 RDU J207 FKN J79 JFK DPK<br>DPK-STAR                                 |                                     |
| BOS   | (Turbojet only) GRD J209 RDU J207 FKN J79<br>JFK ORW-STAR                     |                                     |
|   | (Turboprop only) SIE J121 HTO V308 ORW  |                                     |
|   | V16 WOONS   |                                     |
| BWI   | SPA J14 RIC OTT-STAR  |                                     |
|   | (GPS or DME/DME.IRU equipped) SPA J14   |                                     |
|   | RIC RAVNN (RNAV)-STAR   |                                     |
| DCA   | SPA J14 RIC IRONS-STAR  |                                     |
|   | or  |                                     |
|   | (GPS or DME/DME-IRU equipped) SPA J14   |                                     |
| EW/D  | RIC OJAAY (RNAV)-STAR<br>SPA J14 J15 FAK DYLIN-STAR                           |                                     |
| EWR   | or  |                                     |
|   | (GPS or DME/DME.IRU equipped) SPA J14   |                                     |
|   | J51 FAK PHLBO (RNAV)-STAR   |                                     |
| IAD   | SPA J14 J51 FAK COATT-STARR   |                                     |
| JFK   | GRD J209 ORF J121 SIE CAMRN-STAR  |                                     |
| LGA   | AHN J208 HPW J191 PXT KORRY-STAR  |                                     |
| PHL   | SPA J14 J51 FAK DPNT-STAR   |                                     |
| Northbound from over VXV with destination of CMF  |   |                                     |
|   | VXV J91 HNN BREMN-STAR  |                                     |
| Traffic overflying Atlanta Center Northbound from C   |   |                                     |
|   | SPA J85 HVQ HNN BREMN-STAR  |                                     |
| Traffic overflying Atlanta Center Northbound from   |   |                                     |
| Traffic arrestring Aklanta Contan Contable and arisin   | PSK HVQ HNN BREMN-STAR  |                                     |
| Traffic overflying Atlanta Center Southbound origin (except DAY and CVG) with destinations of FLL, FN | MY, MCO, MIA, PBI, RSW, SRQ and TPA file:                                     | 4400 0000                           |
|   | PSK CAE   | 1100-0300                           |
|   | J83 SPA J85 AMG   | 1100-0300                           |
| Traffic overflying Atlanta Center Southbound origin (with DAY and CVG) with destinations of FLL, FMY, | =   |                                     |
|   | VXV J91 ATL OTK   | 1100-0300                           |
|   | BNA J73 SZWor   | 1100-0300                           |
|   | MGM J20 SZW   | 1100-0300                           |
|   | BNA J73 SZW   | 1100-0300                           |
|   | MGM J20 SZW   | 1100-0300                           |

|   | Route   | Effective<br>Times<br>(UTC) |
|---|---|-----------------------------|
| Traffic originating South of Wilmington VORTAC (IL              |   | (010)                       |
| EWR   | ILM J109 FAK DYLIN-STARor<br>or<br>(GPS or DME/DME.IRU equipped) ILM J109     | 1100-0300                   |
| FRG   | FAK PHLBO (RNAV)-STAR   | 1100-0300                   |
| LGA   | CEBEE SWL J121 SIE CAMRN-STARILM TYI HPW J191 PXT KORRY-STAR                  | 1100-0300<br>1100-0300      |
| Traffic overflying Ormond Beach VORTAC (OMN) de                 | estined MIA:  |                             |
| OMN   | OMN J79 VRB HEATT-STAR  |                             |
| Traffic entering Miami Center (ZMA) for southboun Nagua (MDCY): | d Caribbean flights on L452/L453/L454 to La Ro                                | omana (MDLR) and            |
| ZMA   | LETON L450 GTK ASIVO  |                             |
|   | or<br>LNHOM L452 GTK ASIVO  |                             |
|   | LAMER L464 CERDA L453 ASIVO   |                             |
|   | or<br>MLLER M594 CERDA L459 ASIVOor   |                             |
|   | NUCAR L463 RNDLY ASIVO  |                             |
| Traffic entering Miami Center (ZMA) for southboun ZMA           | d Caribbean flights on L452/L453/L454 to Puert<br>LETON L450 SEKAR A554 PTAor | o Plata (MDPP):             |
|   | LNHOM L452 GTK A554 PTA   |                             |
|   | or<br>LAMER L453 MACKI B891 PTA   |                             |
|   | LUCTI L454 MNDEZ M594 CERDA L453<br>MACKI B891 PTA                            |                             |
|   | or<br>MLLER M594 CERDA L453 MACKI B891  |                             |
|   | PTAor   |                             |
|   | NUCAR L463 RNDLY SEKAR A554 PTA<br>or   |                             |
|   | WATRS M596 PTA  |                             |
| Traffic entering Miami Center (ZMA) for southboun ZMA           | LETON L450 SEKAR A554 CDO   | Domingo (MDSD):             |
|   | or<br>LNHOM L452 GTK L450 SEKAR A554 CDO<br>or                                |                             |
|   | LAMER L453 ASIVO CDO  |                             |
|   | or<br>LUCTI L454 MNDEZ M594 CERDA L453<br>ASIVO CDO                           |                             |
|   | or  |                             |
|   | MLLER M594 CERDA L453 ASIVO CDO<br>or   |                             |
|   | NUCAR L463 RNDLY SEKAR A554 CDO   |                             |

|  | Route   | Effective<br>Times<br>(UTC) |
|--|---|-----------------------------|
| Traffic entering Miami Center (ZMA) for southbound ZMA | Caribbean flights on L452/L453/L454 to Port at LETON L450 GTK G444 OBN                      | u Prince (MTPP):            |
|  | LNHOM L452 GTK G444 OBN   |                             |
|  | LAMER L464 CERDA M594 GTK G444 OBN .  |                             |
| Traffic entering Miami Center (ZMA) for southbound ZMA | Caribbean flights on L452/L453/L454 to Saint .<br>LETON L451 ELMUC L451 ANU                 | Johns Island (TAPA):        |
|  | LNHOM L452 JORGG L451 ELMUC L451  |                             |
|  | ANUor   |                             |
|  | LAMER L453 CERDA L451 ELMUC L451 ANU  |                             |
|  |   |                             |
|  | or<br>LUCTI L454 ELMUC L451 ANU   |                             |
| Traffic entering Miami Center (ZMA) for southbound ZMA | Caribbean flights on L452/L453/L454 to Bridge<br>LETON L451 ELMUC L454 ILURI A555 BGI<br>or | town (TBPB):                |
|  | LNHOM L452 JORGG L451 ELMUC L454 ILURI A555 BGI   |                             |
|  | or<br>LAMER L453 CERDA L451 ELMUC L454  |                             |
|  | ILURI A555 BGI  |                             |
|  | or<br>LUCTI L454 ELMUC L454 ILURI A555 BGI  |                             |
| Traffic entering Miami Center (ZMA) for southbound ZMA | Caribbean flights on L452/L453/L454 to Fort do LETON L451 ELMUC L454 ILURI A555 FOF         | e France (TFFF):            |
|  | or<br>LNHOM L452 JORGG L451 ELMUC L454<br>ILURI A555 FOF                                    |                             |
|  | or  |                             |
|  | ILURI A555 FOF  |                             |
|  | or<br>LUCTI L454 ELMUC L454 ILURI A555 FOF  |                             |
| Traffic entering Miami Center (ZMA) for southbound     |   | Caso (TEEG) and Sain        |
| Barthelemy (TFFJ) and Oranjestad-Roosevelt (TNCE       |   |                             |
|  | or<br>LNHOM L452 JORGG L451 ELMUC L451 PJM  |                             |
|  | or<br>LAMER L453 CERDA L451 ELMUC L451 PJM  |                             |
|  | or<br>LUCTI L454 ELMUC L451 PJM   |                             |
| Traffic entering Miami Center (ZMA) for southbound     |   | a Pitre (TFFR):             |
| ZMA  | R888 PPRor  |                             |
|  | LNHOM L452 JORGG L451 ELMUC L454<br>LEEOO MODUX R888 PPR                                    |                             |
|  | or<br>LAMER L453 CERDA L451 ELMUC L454<br>LEEOO MODUX R888 PPR                              |                             |
|  | or<br>LUCTI L454 FLMUC L454 LEEQO MODUX   |                             |

R888 PPR .....

Effective Times (UTC)

Route

| Traffic entering Miami Center (ZMA) for southbound (TIST): | d Caribbean flights on L452/L453/L454 to Saint Thomas Virgin Islands |
|--|--|
| ZMA  | LETON L451 ELMUC L454 PANMO JETSS                                    |
|  | LNHOM L452 JORGG L451 ELMUC L454                                     |
|  | PANMO JETSS  |
|  | or   |
|  | LAMER L453 CERDA L451 ELMUC L454                                     |
|  | PANMO JETSS  |
|  | or   |
|  | LUCTI L454 ELMUC L454 PANMO JETSS                                    |
| Traffic entering Miami Center (ZMA) for southbound         | d Caribbean flights on L452/L453/L454 to Saint Croix Virgin Islands  |
| (TISX):  |  |
| ZMA  | LETON L451 ELMUC L454 PANMO COY or                                   |
|  | LNHOM L452 JORGG L451 ELMUC L454                                     |
|  | PANMO COY  |
|  | or   |
|  | LAMER L453 CERDA L451 ELMUC L454                                     |
|  | PANMO COY  |
|  | or<br>LUCTI L454 ELMUC L454 PANMO COY                                |
|  | LOCIT L434 LLIVIOG L434 FARVIVIO GOT                                 |
| Traffic entering Miami Center (ZMA) for southbound         | d Caribbean flights on L452/L453/L454 to Aguadilla (TJBQ):           |
| ZMA  | LETON L451 ELMUC BQN   |
|  | or   |
|  | LNHOM L452 JORGG L451 ELMUC BQN or                                   |
|  | LAMER L453 CERDA L451 ELMUC BQN                                      |
|  | Or   |
|  | LUCTI L454 ELMUC BQN   |
| Traffic entering Miami Center (ZMA) for southbound         | d Caribbean flights on L452/L453/L454 to San Juan (TJIG):            |
| ZMA  | LETON L451 ELMUC IDAHO BEANO   |
|  | or   |
|  | LNHOM L452 JORGG L451 ELMUC IDAHO                                    |
|  | BEANO  |
|  | or   |
|  | LAMER L453 CERDA L451 ELMUC IDAHO                                    |
|  | BEANO  |
|  | Or   |
|  | LUCTI L454 ELMUC IDAHO BEANO   |
|  |  |
| Traffic entering Miami Center (ZMA) for southbound         | d Caribbean flights on L452/L453/L454 to Mayaguez (TJMZ):            |
| ZMA  | LETON L451 ELMUC MAZ   |
|  | or   |
|  | LNHOM L452 JORGG L451 ELMUC MAZ                                      |
|  | Or   |
|  | LAMER L453 CERDA L451 ELMUC MAZ                                      |
|  | LUCTI L454 ELMUC MAZ   |
|  | LOOTI LTOT LLINOU WINL   |

|  | Route   | (UTC)                 |
|--|---|-----------------------|
| Traffic entering Miami Center (ZMA) for southbound ZMA                 | Caribbean flights on L452/L453/L454 to Ponce LETON L451 ELMUC PSE | (TJPS):               |
|  | LNHOM L452 JORGG L451 ELMUC PSE                                   |                       |
|  | LAMER L453 CERDA L451 ELMUC PSE or                                |                       |
|  | LUCTI L454 ELMUC PSE  |                       |
| Traffic entering Miami Center (ZMA) for southbound ZMA                 | LETON L451 ELMUC IDAHO ROO6                                       | ran (TJSJ):           |
|  | or<br>LNHOM L452 JORGG L451 ELMUC IDAHO<br>R006                   |                       |
|  | or<br>LAMER L453 CERDA L451 ELMUC IDAHO<br>R006                   |                       |
|  | or<br>LUCTI L454 ELMUC IDAHO R006                                 |                       |
| Traffic entering Miami Center (ZMA) for southbound Charlestown (TKPN): | Caribbean flights on L452/L453/L454 to Golder                     | n Rock (TKPK) and     |
| ZMA  | LETON L451 ELMUC L454 LEEOO DANDE G633 SKB                        |                       |
|  | LNHOM L452 JORGG L451 ELMUC L454<br>LEEOO DANDE G633 SKB          |                       |
|  | or<br>LAMER L453 CERDA L451 ELMUC L454                            |                       |
|  | or  |                       |
|  | LUCTI L454 ELMUC L454 LEEOO DANDE<br>G633 SKB                     |                       |
| Traffic entering Miami Center (ZMA) for southbound of Spain (TTPP):    | Caribbean flights on L452/L453/L454 to Crown                      | Point (TTCP) and Port |
| ZMA  | LETON L451 ELMUC G431 DDP G449 POS or                             |                       |
|  | LNHOM L452 JORGG L451 ELMUC G431 DDP G449 POSor                   |                       |
|  | LAMER L453 CERDA L451 ELMUC G431 DDP<br>G449 POS                  |                       |
|  | or<br>LUCTI L454 ELMUC G431 DDP G449 POS<br>or                    |                       |
|  | GTK L452 ANADA G449 POS   |                       |

# PREFERRED IFR ROUTES HIGH ALTITUDE—SINGLE DIRECTION ROUTES

| Airway | Segment Fixes                      | Direction<br>Effective | Times<br>(UTC) |
|--------|------------------------------------|------------------------|----------------|
| J14    | Greensboro, NC to Richmond, VA     | Northeast              | 1100-0300      |
| J37    | Coyle, NJ to Spartanburg, SC       | Southwest              | 1100-0300      |
| J40    | Wilmington, NC to Richmond, VA     | North                  | 1100-0300      |
| J48    | Pottstown, PA to Foothills, GA     | Southwest              | 1100-0300      |
| J51    | Columbia, SC to Yardley, NJ        | Northeast              | 1100-0300      |
| J52    | Columbia, SC to Richmond, VA       | Northeast              | 1100-0300      |
| J55    | Florence, SC to HUBBS Int., VA     | Northeast              | 1100-0300      |
| J75    | Modena, PA to Greensboro, NC       | Southwest              | 1100-0300      |
| J89    | Atlanta, GA to HITTR Int, FL       | South                  | 1100-0300      |
| J91    | Cross City, FL to Atlanta, GA      | North                  | 1100-0300      |
| J109   | Wilmington, NC to Buffalo, NY      | North                  | 1100-0300      |
| J165   | Charleston, SC to Richmond, VA     | North                  | 1100-0300      |
| J191   | Wilmington, NC to Robbinsville, NJ | North                  | 1100-0300      |
| J193   | HUBBS Int., VA to Wilmington, NC   | South                  | 1100-0300      |
| J207   | Florence, SC to Franklin, VA       | Northeast              | 1100-0300      |
| J208   | Athens, GA to Hopewell, VA         | Northeast              | 1100-0300      |
| J209   | Greenwood, SC to Norfolk, VA       | Northeast              | 1100-0300      |

458 Q-ROUTES

### **GULF OF MEXICO "Q ROUTES"**

These area navigation routes extend more than 12 miles off shore in airspace controlled by the Federal Aviation Administration (FAA). Additional regulatory information for these routes can be found in the Notices to Airmen Publication, Part 3, International Notices to Airmen.

These routes have a Minimum Obstruction Clearance Altitude (MOCA) of 1500 feet (MSL). The Minimum Enroute Altitude (MEA) for these routes is 6000 feet (MSL).

#### Q100

LEV VORTAC

REDFN N28°52.98'/W088°42.11'
ROZZI N28°18.87'/W086°42.31'
REMIS N27°53.04'/W085°15.47'

SRO VORTAC

#### 0102

LEZ VORTAC

BLVNS N28°22.94'/W088°02.05' BUNNZ N28°00.58'/W086°45.76' BACCA N27°35.51'/W085°20.66' CIGAR N27°29.61'/W084'46.99' BAGGS N27°08.06'/W082°50.45'

CYY VORTAC

#### 0105

HRV VORTAC

FATSO N29°41.40'/W089°47.08'
REDFN N28°52.98'/W088°42.11'
BLVNS N28°22.94'/W088°02.05'

### **O-ROUTES REGULATORY**

### Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this AF/D volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note "GNSS REQUIRED".

| Route<br>Q1 | Segment<br>ELMAA-ERAVE | DME<br>BTG, OLM, HQM, HUH, UBG                                       |
|-------------|------------------------|--|
| -           | ERAVE-EASON            | BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG                |
|             | EASON-EBINY            | CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT                               |
|             | EBINY-ENVIE            | CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS                               |
|             | ENVIE-ETCHY            | OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS                     |
|             | ETCHY-POINT REYES      | LIN, ECA, RBL, ENI, SAC, OAK   |
| Q2          | BOILE-HEDVI            | HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR |
|             | HEDVI-HOBOL            | BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS                          |
|             | HOBOL-ITUCO            | TFD, GBN, BLH, PXR, TUS, CIE, SSO                                    |
|             | ITUCO-NEWMAN           | EWM, TFD, PXR, CIE, SSO, TUS, TCS                                    |
| Q3          | FEPOT-FAMUK            | OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG                     |
|             | FAMUK-FRFLY            | BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT                          |
|             | FRFLY-FINER            | OED, EUG, RBL, LMT, ENI, CVO, FJS                                    |
|             | FINER-FOWND            | OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS                     |
|             | FOWND-POINT REYES      | LIN, ECA, PYE, RBL, SAC, ENI   |
| Q4          | BOILE-HEDVI            | HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR |
|             | HEDVI-SCOLE            | EED, BLH, BZA, GBN, TRM, IPL, TFD                                    |
|             | SCOLE-SPTFR            | EED, BLH, BZA, GBN, TRM, IPL, TFD                                    |
|             | SPTFR-ZEBOL            | EED, IPL, BZA, GBN, TFD, PXR, BLH                                    |
|             | ZEBOL-SKTTR            | PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS                     |
|             | SKTTR-EL PASO          | EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME                          |

| Route      | Segment                                 | DME  |
|------------|---|--|
| Q5         | HAROB-HISKU                             | OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH   |
|            | HISKU-HARPR                             | ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV   |
|            | HARPR-HOMEG                             | CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV   |
|            | HOMEG-HUPTU                             | SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS   |
| 07         | HUPTU-STIKM                             | OAK, ECA, PYE, LIN, SAC, ENI, RBL  |
| Q7         | JINMO-JOGEN                             | CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA  |
|            | JOGEN-JUNEJ                             | LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG   |
|            | JUNEJ–JAGWA<br>JAGWA–AVENAL             | RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS   |
| Q9         | SUMMA-SMIGE                             | OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ OLM, UBG, SEA, YKM, BTG, ONP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, |
| Qэ         | SUMINA-SIMIGE                           | EPH, MWH   |
|            | SMIGE-SUNBE                             | IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG  |
|            | SUNBE-REBRG                             | RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED,                                   |
|            | SOURCE MEDICA                           | SWR  |
|            | REBRG-DERBB                             | CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA   |
| Q11        | PAAGE-PAWLI                             | EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV,  |
| -          |   | OED, SEA   |
|            | PAWLI-PITVE                             | EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO  |
|            | PITVE-PUSHH                             | FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ  |
|            | PUSHH-LOS ANGELES                       | SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS                                    |
| Q13        | All segments                            | None; GNSS required  |
| Q15        | All segments                            | None; GNSS required  |
| Q19        | PLESS-NASHVILLE                         | ENL, GQO, PXV, BNA, IIU, FAM, BWG, CSX   |
| Q20        | CORONA-HONDS                            | CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME   |
|            | HONDS-UNNOS                             | CNX, INK, CME, TXO, TCC  |
|            | UNNOS-FUSCO                             | FST, ACH, INK, CME, SJT, TXO, TCC  |
|            | FUSCO-JUNCTION                          | ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST  |
| Q21        | JONEZ-RAZORBACK                         | BYP, EOS, TUL, TXK, ADM, RZC, OKM  |
| Q22        | GUSTI-OYSTY                             | AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV  |
|            | OYSTY-ACMES                             | RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJI  |
| 033        | ACMES-CATLN                             | SJI, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI  |
| Q23<br>Q24 | FORT SMITH-RAZORBACK LAKE CHARLES-BATON |  |
| Q24        | ROUGE                                   | AEX, DAS, LCH, MCB, LFT, BTR   |
|            | BATON ROUGE-IRUBE                       | AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY   |
|            | IRUBE-PAYTN                             | GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI   |
| Q25        | MEEOW-WALNUT RIDGE                      | ELD, MEM, LIT, FAM, RZC  |
| •          | WALNUT RIDGE-WLSUN                      | MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH   |
|            | WLSUN-POCKET CITY                       | BWG, PXV, ENL, BNA, TTH  |
| Q26        | WALNUT RIDGE-DEVAC                      | LIT, JKS,GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG  |
| Q27        | FORT SMITH-ZALDA                        | OKM, SGF, RZC, EOS, TUL  |
| Q28        | GRAZN-PYRMD                             | EIC, LIT, ELD, OKM, TXK  |
|            | PYRMD-HAKAT                             | ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK   |
|            | HAKAT-ESTEE                             | ARG, LIT, FAM, SGF, MEM  |
|            | ESTEE-POCKET CITY                       | ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA   |
| Q29        | HARES-MEMPHIS                           | MEM, ARG, LIT, JAN, ELD, SQS   |
|            | MEMPHIS-SIDAE                           | MEM, PXV, BNA, BWG, ARG, ENL   |
| 020        | SIDAE-POCKET CITY                       | PXV, TTH, BWG, ENL   |
| Q30        | SIDON-VULCAN<br>DHART-JODOX             | GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG  |
| Q31        | JODOX-MARVELL                           | SQS, LIT, TXK<br>SQS, LIT, ELD, MEM, ARG   |
|            | MARVELL-TIIDE                           | ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH   |
|            | TIIDE-POCKET CITY                       | BWG, PXV, ENL, TTH   |
| Q32        | EL DORADO-GAGLE                         | AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK   |
|            | GAGLE-CRAMM                             | JAN, SQS, MEM, ARG, VUZ, BNA, LIT  |
|            | CRAMM-NASHVILLE                         | BWG, MEM, VUZ, BNA, GQO  |
|            | NASHVILLE-SWAPP                         | BWG, IIU, PXV, VXV, BNA, GQO   |
| Q33        | DHART-LITTLE ROCK                       | AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS   |
|            | LITTLE ROCK-PROWL                       | ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL  |
| Q34        | TEXARKANA-MATIE                         | LIT, SWB, TXK, BYP, EIC, ELD, SQS  |
|            | MATIE-MEMPHIS                           | LIT, ARG, MEM, ELD, SQS  |
|            | MEMPHIS-SWAPP                           | BWG, ARG, MEM, MKL, SQS,PXV, BNA, GQO, IIU, VXV  |
| Q35        | KIMBERLY-NEERO                          | LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO  |
|            | NEERO-WINEN                             | BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE  |
|            | WINEN-CORKR                             | CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK  |
|            | CORKR-DRAKE                             | TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD  |

460 Q-ROUTES

| Route | Segment             | DME  |
|-------|---------------------|--|
| Q36   | RAZORBACK-TWITS     | RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT                                |
|       | TWITS-DEPEC         | MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU                                     |
|       | DEPEC-NASHVILLE     | GQO, BWG, BNA, PXV, IIU  |
|       | NASHVILLE-SWAPP     | VXV, BWG, BNA, GQO, PXV, IIU   |
| 030   |                     |  |
| Q38   | ROKIT-INCIN         | DAS, LCH, SWB, IAH, LFK, HUB, AEX  |
|       | INCIN-LAREY         | JAN, MCB, SWB, AEX   |
|       | LAREY-BESOM         | JAN, JYU, MEI, SQS, VUZ  |
| Q40   | ALEXANDRIA-DOOMS    | AEX, SWB, LCH, JAN, HEZ, MCB   |
|       | DOOMS-WINAP         | JAN, SQS, MEI, MCB   |
|       | WINAP-MISLE         | MEI, VUZ, JYU  |
| Q42   | KIRKSVILLE-STRUK    | CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX                           |
| •     | STRUK-DANVILLE      | ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, |
|       | 3.11.011 B/11111ELE | OBK, GIJ, FWA, GSH, IRK  |
|       | DANIVILLE MUNICIE   |  |
|       | DANVILLE-MUNCIE     | GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM  |
|       | MUNCIE-HIDON        | FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, |
|       |                     | AIR, HVQ, CXR, EWC   |
|       | HIDON-BUBAA         | AIR, APE, HNN, CXR, HVQ, EWC, DJB  |
|       | BUBAA-PSYKO         | AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB                      |
|       | PSYKO-BRNAN         | PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT                                     |
|       | BRNAN-MAALS         | EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE                      |
|       | MAALS-SUZIE         | ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK                                |
|       |                     |  |
|       | SUZIE-EAST TEXAS    | JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN                           |
|       | EAST TEXAS-ELIOT    | HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK                                     |
| Q104  | DEFUN-HEVVN         | PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG                           |
|       | HEVVN-PLYER         | PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD                                |
|       | PLYER-SWABE         | PIE, ORL, OMN, SRQ, TAY  |
|       | SWABE-ST PETERSBURG | LAL, ORL, OMN, SRQ, PHK, PIE   |
|       | ST PETERSBURG-      | PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN                                |
|       | CYPRESS             |  |
| Q106  | SMELZ-BULZI         | LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW                 |
|       | BULZI-DRABK         | AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI                           |
|       | DRABK-GADAY         | MGM, PZD, OTK, JYU, SZW, CEW, SJI  |
| 0100  |                     |  |
| Q108  | GADAY-CLAWZ         | MGM, SJI, CEW, JYU, PZD, OTK, MCN, SZW, LGC, TAY, AMG                      |
| Q110  | THNOR-JAYMC         | SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI                                     |
|       | JAYMC-RVERO         | VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP                           |
|       | RVERO-KPASA         | OMN, PIE, PBI, SRQ, ORL, LAL   |
|       | KPASA-BRUTS         | SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG                 |
|       | BRUTS-GULFR         | OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK                                     |
|       | GULFR-FEONA         | TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM                           |
| Q112  | DEFUN-HEVVN         | PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB                                |
| •     | HEVVN-INPIN         | JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG                           |
| Q116  | KPASA-BRUTS         | SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG                 |
| Q110  | BRUTS-GULFR         | OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK                                     |
|       |                     |  |
| 0110  | GULFR-CEEYA         | MCN, AMG, PZD, OTK, SZW, TAY   |
| Q118  | KPASA-BRUTS         | SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG                 |
|       | BRUTS-LENIE         | OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN                                |
| Q501  | VIXIS-GOPHER        | ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT, EAU, |
|       |                     | DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF                                |
|       | GOPHER-SOBME        | FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD                           |
| Q502  | KENPA-GOPHER        | SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW,      |
| -     |                     | MSP, MNM, ASP, TVC, GEP, RWF, BRD  |
|       | GOPHER-SOBME        | FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD                      |
| 0504  | NOTAP-CESNA         | SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC, |
| Q304  | NOTAF-CESNA         |  |
|       | 050114 1151451      | SAW, GRB, BRD  |
|       | CESNA-HEMDI         | ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD                      |
| Q505  | OMAGA-RIMBE         | SSM, TVC, ASP, SAW, GRB  |
|       | RIMBE-CESNA         | SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI                      |
|       | CESNA-HEMDI         | GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB                      |
|       |                     |  |
|       |                     |  |

### HIGH ALTITUDE REDESIGN (HAR) PHASE 1 RNAV ROUTING

#### **RNAV Routing Pitch and Catch Points**

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by pitch (entry into) and catch (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

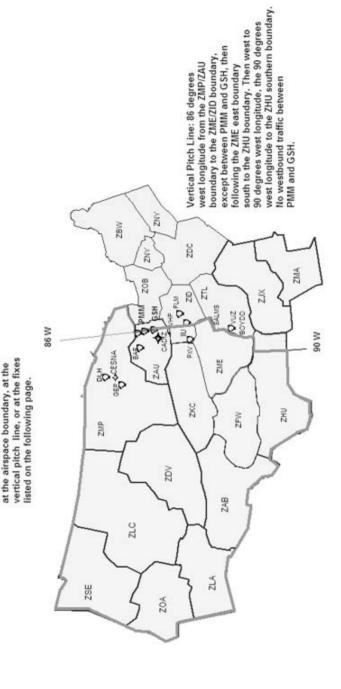
Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: http://sua.faa.gov/sua/Welcome.do. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.

High Altitude Redesign (HAR) Phase One Expansion Airspace

Except as noted, flights entering HAR expansion airspace may pitch



### HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non-restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIF

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

### HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque ABQ, GUP, HANOS or ZUN

Austin ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV

Boca Raton, FL TBIRD KPASA Q118 LENIE

or

TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI

or TBIRD SMELZ Q106 GADAY

Burbank includes GMN, MARKS

Santa Monica o

and Van Nuys DAG LAS

HEC EED or

PMD BLH

Chicago Terminal Area IOW, PLL275065, MZV or BAE

Dallas/Fort Worth Terminal Area ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK

ELD, SWB

or

Aircraft destined the Chicago terminal area

Except MDW

EAKER MIDEE BDF BRADFORD-STAR

Or

MLC J105 SGF BDF BRADFORD-STAR

Denver Terminal Area PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE,

CABET, WEEDS, OR BINKE

Fort Lauderdale (or) THNDR KPASA Q118 LENIE

Fort Lauderdale Executive

THNDR KPASA Q116 CEEYA

or

THNDR KPASA Q110 FEONA

or

THNDR SMELZ Q106 GADAY or

THNDR SMELZ Q106 BULZI

Houston Bush LIT, EMG, MLC, JCT

or

Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE-RNAV STAR

or

Aircraft joining J37 to the northeast, BPT GUSTI Q22 CATLN

or

Aircraft joining J42 to the northeast, ELD Q32 J42

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LIT, EMG, MLC, JCT, Houston Hobby

Aircraft joining J42 to the northeast, ELD Q32 J42

Jacksonville, FL TAY

Kansas City Terminal Area TIFTO, CATTS or KENTN

GMN, RZS Los Angeles, includes Ontario or

> DAG LAS TRM EED or TRM PKE

DOBNE, MOSBI, NICLE, TRALR or ZELOT Las Vegas

Long Beach includes GMN SNS, EHF, LANDO

Orange County

TRM PKE or

TRM EED

Memphis BNA, HAAWK, SALMS or SQS Miami Terminal Area WINCO KPASA Q118 LENIE

> or WINCO KPASA Q116 CEEYA

WINCO KPASA Q110 FEONA

WINCO SMELZ Q106 GADAY

WINCO SMELZ 0106 BULZI

Milwaukee GREAS

Minneapolis Terminal Area\* ONL, ABR, FAR, OBH, OVR, FOD

New Orleans Terminal Area AEX, MEI, SQS, KAPLN Orlando Terminal Area WEBBS BRUTS Q118 LENIE

> or WEBBS GULFR Q116 CEEYA

or

WEBBS BULZI Q106 GADAY

or

WEBBS FEONA

or

WEBBS BULZI

Palm Beach, FL TBIRD KPASA Q118 LENIE

TBIRD KPASA Q116 CEEYA

TBIRD KPASA Q110 FEONA

TBIRD SMELZ Q106 BULZI TBIRD SMELZ Q106 GADAY

TRM JOTNU BLD

Palm Springs

TRM EED

TRM PKE

CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK Phoenix

Portland, OR PDT, TIMEE Salt Lake City HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI

TCH J56 CHE

TCH J173 EKR

Saint Louis VIH, MAP, MYERZ, MCM

HLV MCI

FUZ, SJT, MQP, ABI

Aircraft North of LFK, LFK Aircraft South of HUB, ELA

Aircraft South of LFK and North of HUB LCH

San Diego TRM FFD

or

TRM PKF

TRM JOTNU BLD

San Francisco Bay Area GALLI, INSLO, HAROL JSICA Oakland GALLI, INSLO, HAROL JSICA

San Jose GALLI or INSLO

Seattle BLUIT

Southwest Florida Airports

(RSW/FMY)

San Antonio Terminal Area

JOCKS KPASA Q118 LENIE

JOCKS KPASA 0116 CEEYA JOCKS KPASA Q110 FEONA

JOCKS SMELZ Q106 GADAY

JOCKS SMELZ Q106 BULZI

Tampa Terminal Area FEONA, BULZI

**BRUTS 0118 LENIE** 

or

**GULFR Q116 CEEYA** or BULZI Q106 GADAY

### Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area

Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA

Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVAC

MEM

Aircraft through ZME airspace from ZID airspace west of a line from VHP to

Aircraft through ZME airspace from ZID airspace east of a line from VHP to

BWG, BWG

Aircraft through ZME airspace from ZFW airspace, MEM

MEI HONIE (RNAV)-STAR

PATYN HONIE (RNAV)-STAR

<sup>\*</sup>MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

## 466 HIGH ALTITUDE REDESIGN (HAR) PHASE 1 RNAV ROUTING

Baltimore–Washington\* GIJ. GEP. FLM. IIU. BAE. VHP. WHETT. BNA or VUZ

Boston\* GEP, CRL, ECK, IIU, BNA or VUZ

Buffalo\* GEP, CRL
Hartford Bradley\* GEP, CRL
Canton-Akron\* GIJ, VHP, GEP
Charlotte BNA, VUZ
Cincinnati Terminal Area BNA, PXV

or

Aircraft north of SLC, JOT

Aircraft over or south of SLC, ENL

or

SLC or SFO departures, ENL, JOT

Cleveland Terminal Area\* OBK

Detroit Terminal Area BAE MKG POLAR-STAR

or

VHP FWA MIZAR-STAR

Detroit Young VHP FWA

or

LAN SPRTN-STAR

Indianapolis Terminal Area BIB, SPI, JOT
Louisville ENL. MEM

Newark\* GEP, VHP, FLM, IIU, BNA, VUZ

or

IOW GIJ J554 CRL J584 SLT FQM

New York Kennedy\* GEP, VHP, FLM, IIU, BNA, VUZ

or

DBQ J94 PMM J70 LVZ LENDY-STAR

New York LaGuardia\* GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area\* GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ

Pittsburgh Terminal Area\* VHP, GIJ, BAE, GEP
Pontiac LFD, LAN, VHP, FWA, GEP

Providence JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ

 Raleigh-Durham
 FLM, IIU, BNA, VUZ

 Toronto Terminal Area
 ECK, SVM, SSM, GEP

 Teterboro\*
 GEP, VHP, CRL, BNA, VUZ

Washington Dulles/National\* GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ

White Plains\* GEP, VHP, CRL, FLM, IIU, BNA, VUZ

Willow Run\* LAN, LFD, VHP, FWA, GEP

\*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501

or

Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP

or

Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

## HIGH ALTITUDE REDESIGN (HAR) PHASE 1 RNAV ROUTING

## Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area CURLY CURLY-STAR

ESPAN FRIHO-STAR

LAVAN LAVAN-STAR

FTI FRIHO-STAR

MIERA MIERA-STAR

Austin Terminal Area Aircraft west of a north-south line at LFK, BLEWE

Aircraft east of a north-south line at LFK,IDU

LLO

Boca Raton, FL CEW DEFUN Q112 INPIN SHDAY (RNAV)-STAR

Aircraft through ZHU remain south of ZME and ZTL airspace

DEFUN 0112 INPIN SHDAY (RNAV)-STAR

Aircraft through ZHU remain south of ZME and ZTL airspace

SZW INPIN SHDAY (RNAV)-STAR

Chicago Midway CVA MOTIF-STAR

PIA MOTIF-STAR

DBQ CVA MOTIF-STAR

LMN MOTIF-STAR

Chicago O'Hare Terminal Area GEP DLL MSN JVL JANESVILLE-STAR

TVC PULLMAN-STAR

FOD DBQ JVL JANESVILLE-STAR

MCW JANESVILLE-STAR

GCK IRK BRADFORD-STAR

Dallas/Fort Worth Terminal Area IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR

Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM

Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW

Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS

Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area OATHE DANDD-STAR

HGO QUAIL-STAR

LOPEC-STAR

ALS LARKS-STAR

HBU POWDR-STAR

EKR TOMSN-STAR

CHE TOMSN-STAR

BFF LANDR-STAR

LBF SAYGE-STAR

HCT SAYGE-STAR

RSK LARKS-STAR

LAA QUAIL-STAR

GCK J154 RYLIE DANDD-STAR

OCS J154 ALPOE RAMMS-STAR

YANKI J114 SNY LANDR-STAR

Aircraft filed BIL or east, MBW RAMMS-STAR

Ft Lauderdale or CEW DEFUN Q104 PIE SWAGS (RNAV)-STAR

Ft Lauderdale Executive Aircraft through ZHU airspace remain south ZME and ZTL

airspace

SZW HEVVN 0104 PIE SWAGS (RNAV)-STAR

Houston Bush CRP. CVE. LLO. LUKIY. SAT

Aircraft south and east of LLA, LLA

MISLE Q40 AEX

Aircraft north and east of SJI, SJI

Aircraft east of PXV. PXV 031 DHART SWB

Aircraft north and west of PXV, PROWL Q33 DHART SWB

Houston Hobby CRP, ELLVR, SAT, SWB

or

Aircraft south and east of GIRLY, GIRLY

Aircraft north and east of SJI, SJI

BESOM Q38 ROKIT ROKIT-STAR

Aircraft east of PXV, PXV Q29 HARES SWB

Aircraft north and west of PXV, PROWL Q33 DHART SWB

Jacksonville **GADAY ZOOSS TAY** 

Aircraft through ZHU airspace remain south of ZME and ZTL

airspace

**ZOOSS TAY** 

John Wavne-Orange County HEC. PGS. BLD

Aircraft south of TBC from ZAB airspace, HIPPI

Kansas City Terminal Area LMN BRAYMER-STAR

PWE ROBINSON-STAR

EMP JHAWK-STAR

DILCO, LIDAT, IGM Las Vegas

Aircraft over PGA or north of PGA KSINO

Aircraft south of PGA PGS LYNSY

Los Angeles Terminal Area Aircraft North of TBC, HEC, PGS

Aircraft South of TBC from ZAB airspace, HIPPI,

MESSI

CEW DEFUN Q104 CYY DEEDS (RNAV)-STAR Miami Terminal Area

Aircraft through ZHU airspace remain south ZME and ZTL airspace

SZW HEVVN Q104 CYY DEEDS (RNAV)-STAR

Minneapolis Terminal Area Aircraft from north, west, south,

FAR GOPHER-STAR

RWF SKETR-STAR or ALO KASPR-STAR

BRD GOPHER-STAR

BAE EAU CLAIRE-STAR

FOD TWOLF-STAR

Memphis Terminal Area ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD

Naples, FL CEW DEFUN 0104 PLYER PIKKR (RNAV)-STAR

Aircraft through ZHU AIRSPACE remain south of ZME and ZTL

airspace

SZW HEVVN 0104 PLYER PIKKR (RNAV)-STAR

Nashville CCT, GHM, GUITR, TINGS, VOLLS New Orleans Terminal Area BLUEZ, GPT, LCH, MCB, TBD, FATSO

Oakland II A

KATTS PAMMY

Aircraft over or south of a line ILC J16 DVC

REANA KATTS PAMMY

Aircraft from north of ILC, JOPER PAMMY

KATTS PAMMY

Aircraft over or south of ILC, REANA KATTS PAMMY

Orlando Terminal Area GADAY Q108 CLAWZ LEESE-STAR

Aircraft through ZHU airspace remain south of ZME/ZTL

airspace

OTK LEESE-STAR

## 470 HIGH ALTITUDE REDESIGN (HAR) PHASE 1 RNAV ROUTING

Palm Beach, FL CEW DEFUN Q112 INPIN GULLO (RNAV)-STAR

Aircraft through ZHU airspace remain south of ZME and ZTL

airspace

r

SZW INPIN GULLO (RNAV)-STAR

Phoenix CORKR DRK

or

Aircraft from ZDV airspace,

GUP

Aircraft from ZAB airspace,

ZUN, MOHAK, SSO

or

VYLLA TUS

Phoenix Satellites FLG, SSO, MOHAK

or

VYLLA, TUS

Portland, OR Terminal Area ARNIT BONVL-STAR

LARNO BONVL-STAR

or

MOXEE MOXEE-STAR

St. Louis Terminal Area SGF TRAKE-STAR

or

BUM TRAKE-STAR

ANX TRAKE-STAR

r

LMN IRK RIVRS-STAR

RBS VANDALIA-STAR

Salt Lake City Terminal Area JNC J12 HELPR SPANE-STAR

or

EKR MTU SPANE-STAR or

BCE DTA-TCH

or MLF DTA-TCH

or

BVL BONNEVILLE-STAR

or

BYI BEARR-STAR

or

PIH BEARR-STAR

or

DBS BRIGHAM CITY-STAR

or

JAC BRIGHAM CITY-STAR or

BPI BRIGHAM CITY-STAR

or

OCS BRIGHAM CITY-STAR

San Diego Terminal Area EED, LAX, GBN

Santa Ana HEC, PGS, BLD, HIPPI

San Antonio Terminal Area IDU, CSI, JCT, LLO, CRP, LRD

or

West of a north-south line at LFK, BLEWE

10

East of a north-south line at LFK, IDU

San Francisco FMG GOLDEN GATE-STAR

or

MVA MODESTO-STAR

ENI GOLDEN GATE-STAR

or

OAL MODESTO-STAR

or

South of a line ILC to DVC,

REANA KATTS OAL MODESTO-STAR

San Jose FMG HYP EL NIDO-STAR

or

OAL HYP EL NIDO-STAR

or

ENI GOLDEN GATE-STAR

or

South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO-STAR

Seattle Terminal Area Aircraft From northeast, southeast, south,

TEMPL GLASR-STAR

or

SUNED CHINS-STAR

or

BTG OLMYPIA-STAR

Southwest Florida Airports CEW DEFUN Q104 SWABE JOSFF-STAR
RSW and FMY Aircraft through ZHU airspace remain south of ZME and ZTL

airspace

or

SZW HEVVN Q104 SWABE JOSFF-STAR

Tampa Terminal Area CEW DEFUN Q104 HEVVN DARBS-STAR

Aircraft through ZHU airspace remain south of ZME and ZTL

airspace

or

SZW DARBS-STAR

Tucson DRK PXR

or

MOHAK GBN

## VFR WAYPOINTS

## **VISUAL FLIGHT RULES (VFR) WAYPOINTS**

VFR Waypoint names consist of five letters beginning with "VP". Stand-alone VFR Waypoints are portrayed on VFR Charts using the same four-point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag. The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

## RAITIMORE-WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

| BALTIMORE-WASHINGTON TERMINAL AREA CHART/FLYWAY CHART |                            |                        |
|---|----------------------------|------------------------|
| WAYPOINT IDENT  | COLLOCATED VFR CHECKPOINT  | LOCATION               |
| VPAXI   |                            | N38°34.57′/W076°20.38′ |
| VPONX   |                            | N39°06.65′/W076°55.92′ |
| VPOOP   |                            | N38°56.32′/W076°36.90′ |
|   | BOSTON HELICOPTER CHART    |                        |
| VPBAY   | DOSTON HELIOOFTEN OHANT    | N42°16.17′/W070°49.48′ |
| VPBLT   |                            | N42°19.67′/W070°53.40′ |
| VPCGS   |                            | N42°22.08′/W071°03.13′ |
| VPEVS   |                            | N42°23.52′/W071°04.10′ |
| VPFEN   | <del></del>                | N42°12.58′/W071°08.88′ |
| VPFRE   |                            | N42°25.03′/W071°12.32′ |
| VPGVL   |                            | N42°21.88′/W070°52.18′ |
| VPHAM   |                            | N42°30.13′/W071°07.15′ |
| VPPIK   |                            | N42°20.37′/W071°15.93′ |
| VPOUA   |                            | N42°12.10′/W071°04.78′ |
| VPQUB   |                            | N42°12.60′/W070°59.83′ |
| VPSPF   |                            | N42°24.20′/W071°09.47′ |
| VPTOB   |                            | N42°31.42′/W070°59.82′ |
| VPWAN   | <u> </u>                   | N42°36.88′/W071°19.45′ |
|   | BOSTON TERMINAL AREA CHART |                        |
| VPCOH   | Cohasset                   | N42°13.58′/W070°48.94′ |
| VPCUT   | Cuttyhunk Harbor           | N41°25.50′/W070°55.03′ |
| VPFRA   | Framingham Shopping Center | N42°18.16′/W071°23.65′ |
| VPHOL   | Woods Hole                 | N41°31.06′/W070°40.60′ |
| VPHUL   | Hull                       | N42°18.20′/W070°55.30′ |
| VPLPT   | Nantucket Great Point      | N41°23.41′/W070°02.78′ |
| VPNED   | Needham Towers             | N42°18.51′/W071°14.64′ |
| VPPEA   | Peabody Shopping Center    | N42°32.52′/W070°56.69′ |
| VPROC   | Rockingham Race Track      | N42°46.29′/W071°13.57′ |
| VPSCI   | Scituate                   | N42°11.89′/W070°43.69′ |
| VPTPT   | Nantucket Third Point      | N41°18.51′/W070°03.37′ |
| VPTUC   | Tuckernuck                 | N41°18.31′/W070°15.43′ |
| VPWAK   | Wakefield                  | N42°30.72′/W071°05.24′ |
| VPWAN   | Wang Towers                | N42°36.88′/W071°19.45′ |
|   | CHARLOTTE SECTIONAL CHART  |                        |
| VPATO   |                            | N34°37.37′/W076°31.47′ |
| VPAVA   |                            | N34°57.00′/W077°16.50′ |
| VPBFE   |                            | N32°16.38′/W080°47.50′ |
| VPBRA   |                            | N36°13.75′/W076°08.08′ |
| VPGCE   |                            | N36°03.90′/W076°36.42′ |
| VPGHI   |                            | N35°15.30′/W075°31.25′ |
| VPGI0   |                            | N35°32.50′/W076°37.33′ |
| VPKJU   |                            | N35°26.58′/W076°10.22′ |
| VPLMN   |                            | N34°55.43′/W077°46.42′ |
| VPMAB   |                            | N34°42.20′/W077°03.50′ |
| VPNPO   | ISLE OF PALMS              | N32°47.78′/W079°46.45′ |
| VPOKY   |                            | N35°06.53′/W075°59.17′ |
| VPREP   |                            | N32°33.98′/W080°21.82′ |
| VPRRS   |                            | N33°25.45′/W079°07.60′ |
| VPUMO   | <del></del>                | N35°35.63′/W075°28.08′ |
| VPWZ0   |                            | N36°00.87′/W075°40.07′ |
| VPZIE   |                            | N32°01.62′/W080°53.42′ |

## CHICAGO SECTIONAL CHART

|                             | CHICAGO SECTIONAL CHA          | ART .   |
|-----------------------------|--------------------------------|---|
| WAYPOINT IDENT<br>VPCOH     | COLLOCATED VFR CHECKPOINT      | <b>LOCATION</b><br>N31°49.35′/W081°51.07′       |
|                             | DENVER TERMINAL AREA CHART/FL  | YWAY CHART                                      |
| VPBEN                       |                                | N39°44.28′/W104°26.00′                          |
| VPFTG                       |                                | N39°44.35′/W104°32.75′                          |
| VPNIC                       | NORTH INTERCHANGE              | N39°58.90′/W104°59.27′                          |
|                             | HOUSTON TERMINAL AREA CHART/FL | YWAY CHART                                      |
| WAYPOINT IDENT              | COLLOCATED VFR CHECKPOINT      | LOCATION  |
| VPBWY                       |                                | N29°46.25′/W095°09.24′                          |
| VPDTN                       |                                | N29°46.59′/W095°22.01′                          |
| VPGLA                       |                                | N30°08.32′/W095°06.62′                          |
| VPGLB                       |                                | N30°07.80′/W094°55.70′                          |
| VPKTY                       |                                | N29°47.05′/W095°44.92′                          |
| VPPLN                       |                                | N30°08.80′/W095°50.42′                          |
| VPRSN                       |                                | N29°30.00′/W095°41.00′                          |
| VPSND                       |                                | N29°23.13′/W095°28.86′                          |
| VPSNT                       |                                | N29°49.29′/W094°53.94′                          |
| VPTNE                       | <del></del>                    | N29°47.48′/W095°03.34′                          |
| VPTNW                       | <del></del>                    | N29°47.06′/W095°33.81′                          |
| VPTRK                       |                                | N29°24.06′/W095°10.44′                          |
|                             | JACKSONVILLE SECTIONAL C       | HART  |
| VPAFI                       |                                | N31°49.35′/W081°51.07′                          |
| VPAFY                       |                                | N30°07.00′/W081°21.33′                          |
| VPBEC                       |                                | N29°46.25′/W081°15.10′                          |
| VPCJA                       |                                | N29°30.00′/W081°06.00′                          |
| VPCKY                       |                                | N28°46.50′/W082°34.00′                          |
| VPCNY                       |                                | N28°30.00′/W080°45.00′                          |
| VPDAD                       | DADE CITY                      | N28°22.57′/W082°11.25′                          |
| VPDAR                       |                                | N31°22.38′/W081°24.13′                          |
| VPDFI                       |                                | N29°00.17′/W081°20.85′                          |
| VPDUT                       |                                | N27°37.70′/W082°09.10′                          |
| VPEAR                       | CLEARWATER BEACH               | N27°58.67′/W082°49.83′                          |
| VPEGV                       |                                | N29°39.97′/W081°24.87′                          |
| VPFFU                       |                                | N28°57.08′/W081°00.33′                          |
| VPGPE                       | ST PETE BEACH                  | N27°43.50′/W082°44.67′                          |
| VPHAA                       | 01 1 E1E BENON                 | N30°04.02′/W083°40.02′                          |
| VPHUC                       | <del></del>                    | N28°19.87′/W082°43.77′                          |
| VPIWA                       | MIDWAY                         | N31°48.33′/W081°25.85′                          |
| VPJMY                       |                                | N29°26.92′/W081°18.27′                          |
| VPKER                       | LAKE PARKER                    | N28°04.00′/W081°56.00′                          |
| VPLEV                       |                                | N28°48.00′/W080°52.00′                          |
| VPLJA                       |                                | N29°00.00′/W080°51.00′                          |
| VPMAI                       |                                | N30°50.02′/W084°56.63′                          |
| VPTLH                       |                                | N30°32.70′/W083°52.22′                          |
| VPXZY                       |                                | N29°35.00′/W083°10.00′                          |
| VPYIW                       |                                | N30°42.28′/W081°27.25′                          |
| VPZIE                       |                                | N32°01.62′/W080°53.42′                          |
| KANSAS CITY SECTIONAL CHART |                                |   |
| VPAGO                       |                                | N37°50.33′/W090°29.03′                          |
| VPBEK                       |                                | N37°15.07′/W092°30.67′                          |
| VPDEN                       |                                | N37°46.75′/W092°19.20′                          |
| VPENE                       |                                | N37°44.75′/W091°55.78′                          |
| VPESS                       |                                | N36°59.48′/W091°00.88′                          |
| VPFME                       |                                | N37°41.00′/W092°38.33′                          |
| VPGXY                       |                                | N37°15.50′/W091°40.17′                          |
| VPMBE                       | <del></del>                    | N37°11.08′/W090°27.92′                          |
| VPMKE                       | <del></del>                    | N37°11.08′/W090°27.92<br>N37°24.47′/W092°40.00′ |
| VPROV                       |                                | N38°01.72′/W091°12.81′                          |
| VPUTT                       | <del></del>                    | N37°52.05′/W092°01.20′                          |
| *1 011                      | <del></del>                    | 1437 32.03 / 44032 01.20                        |

## 474 VFR WAYPOINTS

| WAYPOINT IDENT | COLLOCATED VFR CHECKPOINT            | <b>LOCATION</b><br>N37°18.03′/W092°18.63′        |
|----------------|--------------------------------------|--|
| VPWRO          |                                      | N37 18.03 /W092 18.63<br>N37°39.12′/W091°45.68′  |
| VPXIZ          |                                      | N37°26.60′/W092°05.42′                           |
|                | KANSAS CITY TERMINAL ARE             | EA CHART   |
| VPATN          | ATCHISON                             | N39°33.62′/W095°07.65′                           |
| VPBGS          | BLUE SPRINGS                         | N39°01.82′/W094°16.32′                           |
| VPBSP          | BONNER SPRINGS                       | N39°03.78′/W094°53.10′                           |
| VPCHB          | CHOUTEAU BRIDGE                      | N39°08.77′/W094°32.03′                           |
| VPDSO          | DE SOTO                              | N38°58.68′/W094°58.48′                           |
| VPESG          | EXCELSIOR SPRINGS                    | N39°20.68′/W094°13.77′                           |
| VPGTB          | GARRETSBURG                          | N39°40.92′/W094°41.45′                           |
| VPLAT          | LATHROP WATER TANK                   | N39°32.87′/W094°20.00′                           |
| VPLEN          | LENEXA                               | N38°57.77′/W094°43.68′                           |
| VPLVL          | LONGVIEW LAKE                        | N38°54.63′/W094°28.28′                           |
| VPMCL          | MC LOUTH                             | N39°11.65′/W095°12.50′                           |
| VPNHA          | NASHUA                               | N39°17.83′/W094°34.80′                           |
| VPSCX          | SPORTS COMPLEX                       | N39°03.00′/W094°29.02′                           |
| VPSKR          | SUGAR CREEK REFINERY                 | N39°07.00′/W094°27.02′                           |
| VPSPK          | SWOPE PARK                           | N39°00.47′/W094°31.93′                           |
| VPTSK          | TWIN STACKS                          | N39°09.05′/W094°38.22′                           |
| VPWOF          | WORLDS OF FUN                        | N39°10.42′/W094°29.12′                           |
|                | KLAMATH FALLS SECTIONAL              | L CHART  |
| VPORO          |                                      | N43°57.38′/W123°02.22′                           |
|                | LOS ANGELES HELICOPTER               | CHART  |
| VPANA          |                                      | N33°44.43′/W117°50.03′                           |
| VPART          | MAGNOLIA                             | N33°51.45′/W117°58.92′                           |
| VPAUT          | HWY 91 & 55                          | N33°50.63′/W117°49.57′                           |
| VPBOB          |                                      | N33°59.60′/W117°21.45′                           |
| VPCAR          |                                      | N33°49.90′/W118°17.23′                           |
| VPCNG          | CONEJO GRADE US HWY 101              | N34°12.54′/W118°59.61′                           |
| VPCOR          |                                      | N33°52.90′/W117°32.95′                           |
| VPCRX          |                                      | N34°01.40′/W117°44.88′                           |
| VPCSU          | CSU CHANNEL ISLANDS                  | N34°09.76′/W119°02.53′                           |
| VPDOW          |                                      | N33°56.47′/W118°05.80′                           |
| VPELA          |                                      | N34°00.98′/W118°10.35′                           |
| VPETY          | <del></del>                          | N33°38.70′/W117°44.12′                           |
| VPFCB          | <del></del>                          | N34°02.03′/W118°01.63′                           |
| VPFPL          | OXNARD FINANCIAL PLAZA               | N34°13.71′/W119°10.39′                           |
| VPGOL          |                                      | N34°09.33′/W118°17.37′                           |
| VPIMP          |                                      | N33°55.85′/W118°16.85′                           |
| VPKAT          |                                      | N33°48.23′/W117°54.22′<br>N34°03.92′/W117°48.40′ |
| VPKEL<br>VPLAC |                                      | N34°03.92 /W117°48.40<br>N34°03.75′/W118°14.93′  |
| VPLLU          |                                      | N34 03.75 /W116 14.93<br>N34°03.85'/W117°17.82'  |
|                | OUEEN MARY                           | N33°45.17′/W118°11.37′                           |
| VPLQM<br>VPLRT | QUEEN MARY<br>SANTA ANITA RACE TRACK | N34°08.45′/W118°02.65′                           |
| VPLVT          | VINCENT THOMAS BRIDGE                | N33°44.97′/W118°16.32′                           |
| VPMDR          | VINCENT THOMAS BRIDGE                | N33°59.27′/W118°23.97′                           |
| VPNEW          | NEWHALL PASS                         | N34°20.18′/W118°30.72′                           |
| VPNUY          | NEWHALL PAGG                         | N34 20.18 / W116 30.72<br>N34°09.63'/W118°28.18' |
| VPPCH          |                                      | N33°28.07′/W117°40.32′                           |
| VPPKC          |                                      | N34°03.32′/W118°12.83′                           |
| VPPOR          | <del></del>                          | N34°00.10′/W117°50.12′                           |
| VPRRT          |                                      | N33°59.37′/W118°16.83′                           |
| VPSEP          |                                      | N34°05.80′/W118°28.63′                           |
| VPSFR          |                                      | N34°17.45′/W118°28.07′                           |
| VPSTC          | SATICOY BRIDGE                       | N34°16.62′/W119°08.34′                           |
| VPSTK          | <del></del>                          | N34°13.97′/W118°24.60′                           |
|                |                                      | ,          |

N26°28.30′/W080°26.75′

N25°50.67'/W080°55.18'

N25°22.92'/W080°36.58'

N27°03.00′/W080°35.00′

# VFR WAYPOINTS Los angeles sectional chart

| LOS ANGELES SECTIONAL CHART |                                       |  |
|-----------------------------|---------------------------------------|--|
| WAYPOINT IDENT              | COLLOCATED VFR CHECKPOINT             | LOCATION   |
| VPCNG                       | CONEJO GRADE US HWY 101               | N34°12.54′/W118°59.61′                           |
| VPCSU                       | CSU CHANNEL ISLANDS                   | N34°09.76′/W119°02.53′                           |
| VPFPL                       | OXNARD FINANCIAL PLAZA                | N34°13.71′/W119°10.39′                           |
| VPSTC                       | SATICOY BRIDGE                        | N34°16.62′/W119°08.34′                           |
|                             | LOS ANGELES TERMINAL AREA CHART       | /FLYWAY CHART                                    |
| VPCNG                       | CONEJO GRADE US HWY 101               | N34°12.54′/W118°59.61′                           |
| VPCSU                       | CSU CHANNEL ISLANDS                   | N34°09.76′/W119°02.53′                           |
| VPGTY                       | GETTY CENTER                          | N34°04.84′/W118°28.66′                           |
| VPLBP                       | BANNING PASS                          | N33°56.05′/W116°59.63′                           |
| VPLCC                       | CHAFFEY COLLEGE                       | N34°08.87′/W117°34.33′                           |
| VPLCP                       | CAJON PASS                            | N34°18.07′/W117°27.68′                           |
| VPLDL                       | DISNEYLAND                            | N33°48.72′/W117°55.13′                           |
| VPLDP<br>VPLDS              | DANA POINT<br>DODGER STADIUM          | N33°27.62′/W117°42.87′<br>N34°04.42′/W118°14.42′ |
| VPLEX                       | 91/605 INTERCHANGE                    | N33°52.38′/W118°06.08′                           |
| VPLGP                       | GRIFFITH PARK OBSERVATORY             | N34°07.10′/W118°18.02′                           |
| VPLHF                       | 110/405 FWYS                          | N33°51.42′/W118°17.10′                           |
| VPLHP                       | HUNTINGTON PIER                       | N33°39.32′/W118°00.25′                           |
| VPLKH                       | KING HARBOR                           | N33°50.75′/W118°23.88′                           |
| VPLLC                       | L.A. COLISEUM                         | N34°00.83′/W118°17.27′                           |
| VPLLM                       | LAKE MATHEWS                          | N33°50.58′/W117°26.85′                           |
| VPLMM                       | MAGIC MOUNTAIN                        | N34°26.20′/W118°36.28′                           |
| VPLMS                       | MILE SQUARE PARK                      | N33°43.40′/W117°56.77′                           |
| VPLPD                       | PRADO DAM                             | N33°53.40′/W117°38.48′                           |
| VPLPP                       | PACIFIC PALISADES                     | N34°02.13′/W118°32.15′                           |
| VPLQM                       | QUEEN MARY                            | N33°45.17′/W118°11.37′                           |
| VPLRB                       | ROSE BOWL                             | N34°09.67′/W118°10.05′                           |
| VPLRT                       | SANTA ANITA RACE TRACK                | N34°08.45′/W118°02.65′                           |
| VPLSA                       | SANTA ANA CANYON                      | N33°52.03′/W117°42.68′                           |
| VPLSB<br>VPLSC              | SANTA FE FLOOD BASIN<br>STATE COLLEGE | N34°07.72′/W117°57.30′<br>N33°52.97′/W117°53.13′ |
| VPLSF                       | SAN FERNANDO RESERVOIR                | N33 52.97 /W117 53.13<br>N34°17.87'/W118°29.00'  |
| VPLSP                       | SIGNAL PEAK                           | N33°36.33′/W117°48.63′                           |
| VPLSR                       | HAWTHORNE & 405 FREEWAY               | N33°53.07′/W118°21.13′                           |
| VPLSS                       | SANTA SUSANA PASS                     | N34°16.00′/W118°38.43′                           |
| VPLTW                       | TUJUNGA WASH & FOOTHILL               | N34°16.40′/W118°20.30′                           |
| VPLVT                       | VINCENT THOMAS BRIDGE                 | N33°44.97′/W118°16.32′                           |
| VPLWT                       | WATER TANK                            | N34°10.82′/W118°46.27′                           |
| VPNEW                       | NEWHALL PASS                          | N34°20.18′/W118°30.72′                           |
| VPSTC                       | SATICOY BRIDGE                        | N34°16.62′/W119°08.34′                           |
|                             | MIAMI SECTIONAL CHA                   | RT   |
| VPACH                       | HOLLYWOOD BEACH                       | N26°00.92′/W080°06.93′                           |
| VPBOV                       |                                       | N27°57.00′/W080°46.75′                           |
| VPCLE                       |                                       | N26°27.07′/W082°00.88′                           |
| VPCTE                       |                                       | N26°09.28′/W081°20.70′                           |
| VPDAD                       | DADE CITY                             | N28°22.57′/W082°11.25′                           |
| VPDUT                       |                                       | N27°37.70′/W082°09.10′                           |
| VPDZE                       | <del></del>                           | N27°19.00′/W080°44.17′                           |
| VPEAR                       | CLEARWATER BEACH                      | N27°58.67′/W082°49.83′                           |
| VPEDY<br>VPFAH              | ANDYTOWN TOLLGATE                     | N26°08.78′/W080°28.00′                           |
| VPFAH<br>VPGPE              | ST PETE BEACH                         | N26°25.40′/W081°29.67′<br>N27°43.50′/W082°44.67′ |
| VPGPE<br>VPHRO              | SI PETE DEACH                         | N27°43.50′/W082°44.67′<br>N27°05.97′/W082°12.20′ |
| VPHRO                       | <del></del>                           | N27'05.97 /W082'12.20<br>N28°19.87'/W082°43.77'  |
| VPIBR                       | <del></del>                           | N27°12.47′/W081°40.22′                           |
| VPKER                       | LAKE PARKER                           | N28°04.00′/W081°56.00′                           |
| VPKOE                       |                                       | N24°40.08′/W081°20.55′                           |
| VPLYY                       |                                       | N24°49.07′/W080°49.17′                           |
| VPMBO                       | GULFSTREAM PARK                       | N25°58.57′/W080°08.17′                           |
| 1/0004                      | DUMBING STATION                       | . ,  |

PUMPING STATION

RANGER STATION

VPOBA

**VPRBI** 

VPRNL

VPWMO

# MIAMI TERMINAL AREA CHART/FLYWAY CHART

| IVI            | IAMI TERMINAL AREA GHART/TETWAT G           | IIANI  |
|----------------|---|--|
| WAYPOINT IDENT | COLLOCATED VFR CHECKPOINT                   | LOCATION   |
| VPACH          | HOLLYWOOD BEACH                             | N26°00.92′/W080°06.93′                           |
| VPEDY          | ANDYTOWN TOLLGATE                           | N26°08.78′/W080°28.00′                           |
| VPMBO          | GULFSTREAM PARK                             | N25°58.57′W080°08.17′                            |
| VPOBA          | PUMPING STATION                             | N26°28.30′/W080°26.75′                           |
| VPRBI          | DANIOED OTATION                             | N25°50.67′/W080°55.18′                           |
| VPRNL          | RANGER STATION                              | N25°22.92′/W080°36.58′                           |
|                | NEW ORLEANS SECTIONAL CHART                 |  |
| VPGPT          |   | N30°25.95′/W089°05.62′                           |
| VPLIP          | PHILLIPS INLET                              | N30°16.23′/W085°59.25′                           |
| VPMAI          |   | N30°50.02′/W084°56.63′                           |
| VPMOB          |   | N30°23.00′/W088°31.72′                           |
| VPRAM          |   | N30°18.95′/W089°35.88′                           |
| VPRER          |   | N30°13.87′/W085°20.67′                           |
| VPRIV          |   | N30°54.85′/W087°57.82′                           |
| VPSAW          |   | N30°49.65′/W089°07.42′                           |
| VPTHR          |   | N30°19.93′/W087°08.50′                           |
|                | NEW YORK HELICOPTER CHART                   |  |
| VPJAY          |   | N40°59.00′/W073°07.00′                           |
| VPLYD          |   | N40°57.37′/W073°29.59′                           |
| VPROK          |   | N40°52.70′/W073°44.24′                           |
| PHO            | DENIX TERMINAL AREA CHART/FLYWAY            | CHART  |
| VPALL          | ALLENVILLE                                  | N33°20.97′/W112°35.20′                           |
| VPAQU          | AQUEDUCT PUMPING STATION                    | N33°40.05′/W112°41.38′                           |
| VPARM          | ARROWHEAD MALL                              | N33°38.52′/W112°13.48′                           |
| VPAWG          | AHWATUKEE GOLF COURSE                       | N33°19.98′/W111°59.08′                           |
| VPAZM          | ARIZONA MILLS                               | N33°23.43′/W111°57.88′                           |
| VPBAR          | BARTLETT DAM                                | N33°49.10′/W111°37.92′                           |
| VPCCC          | COUNTRY CLUB & CANAL                        | N33°30.73′/W111°50.37′                           |
| VPCNL          | CANAL                                       | N33°33.23′/W111°46.89°                           |
| VPFRB          | FIREBIRD LAKE                               | N33°16.35′/W111°58.10′                           |
| VPFTN          | FOUNTAIN HILLS                              | N33°36.12′/W111°42.72′                           |
| VPGLX          | GILA CROSSING                               | N33°16.55′/W112°10.08′                           |
| VPGPP          | GLENDALE POWER PLANT                        | N33°33.27′/W112°13.00′                           |
| VPMAR          | MARICOPA                                    | N33°03.42′/W112°02.88′                           |
| VPMHS          | MESQUITE HIGH SCHOOL                        | N33°20.53′/W111°49.58′                           |
| VPNRV          | NEW RIVER                                   | N33°55.08′/W112°08.45′                           |
| VPNTT          | NORTH TEST TRACK                            | N33°03.50′/W111°55.83′                           |
| VPPIR          | PIR   | N33°22.52′/W112°18.90′                           |
| VPQTR<br>VPRVC | QUINTERO GOLF COURSE<br>RIO VERDE COMMUNITY | N33°49.53′/W112°23.58′<br>N33°44.37′/W111°39.62′ |
| VPSMC          | SOUTH MOUNTAIN COLLEGE                      | N33°23.02′/W112°02.12′                           |
| VPSOP          | SQUAW PEAK                                  | N33°32.83′/W112°01.27′                           |
| VPSSS          | SUPERSTITION SPRINGS MALL                   | N33°23.50′/W111°41.37′                           |
| VPSTN          | SANTAN MOUNTAINS                            | N33°09.23′/W111°40.92′                           |
| VPSTT          | SOUTH TEST TRACK                            | N32°56.25′/W111°59.67′                           |
| VPZZZ          |   | N33°20.18′/W111°26.53′                           |
| ST             | LOUIS TERMINAL AREA CHART/FLYWAY            | CHART  |
| VPAGN          | TV ANTENNA                                  |  |
| VPAGN<br>VPBPE | IV ANTENNA                                  | N38°32.08′/W090°22.42′<br>N38°23.80′/W090°20.38′ |
| VPCJY          | HOLIDAY SHORES                              | N38°55.00′/W089°56.00′                           |
| VPCOJ          | WINFIELD DAM                                | N39°00.28′/W090°41.23′                           |
| VPDFA          | JEFFERSON BARRACKS BRIDGE                   | N38°29.18′/W090°16.47′                           |
| VPEAZ          | BUSCH STADIUM                               | N38°37.43′/W090°11.55′                           |
| VPEDZ          | WATER TANKS                                 | N38°45.30′/W090°34.87′                           |
| VPEGR          | GAS TANKS                                   | N38°35.80′/W090°19.32′                           |
| VPEOX          | ST PETERS                                   | N38°47.17′/W090°39.25′                           |
| ==/            |   | , 11000 00.20                                    |

| WAYPOINT IDENT | COLLOCATED VFR CHECKPOINT | LOCATION               |
|----------------|---------------------------|------------------------|
| VPFAI          | HOWELL ISLAND             | N38°40.00′/W090°43.00′ |
| VPFFY          |                           | N38°55.37′/W090°17.30′ |
| VPGPF          |                           | N38°35.60′/W090°26.92′ |
| VPGVI          |                           | N38°32.30′/W090°27.80′ |
| VPHRQ          | CHAIN OF ROCKS BRIDGE     | N38°45.88′/W090°10.42′ |
| VPIBO          | WATERLOO                  | N38°20.00′/W090°09.00′ |
| VPJMU          | HORSESHOE LAKE            | N38°41.00′/W090°05.00′ |
| VPKNY          | PACIFIC                   | N38°29.00′/W090°44.00′ |
| VPLES          | ST CHARLES                | N38°47.00′/W090°30.00′ |
| VPLIW          | SIX FLAGS                 | N38°30.67′/W090°40.47′ |
| VPLXU          | GATEWAY ARCH              | N38°37.50′/W090°11.00′ |
| VPNSY          | WOOD RIVER REFINERIES     | N38°50.00′/W090°05.00′ |
| VPNZY          | WENTZVILLE                | N38°48.83'/W090°50.98' |
| VPRAZ          | JERSEYVILLE               | N39°07.00′/W090°20.00′ |
| VPRMO          | FOREST PARK               | N38°38.00′/W090°17.00′ |
| VPWKO          | COLUMBIA                  | N38°27.00′/W090°12.00′ |
| VPXXI          | MILLSTADT                 | N38°27.50′/W090°05.68′ |
| VPYID          | MOSENTHEIN ISLAND         | N38°43.00′/W090°12.25′ |

## SALT LAKE CITY HELICOPTER CHART

|       |                       | •                      |
|-------|-----------------------|------------------------|
| VPAIR | SALTAIR               | N40°44.85′/W112°11.22′ |
| VPBEE | SOUTH INTERCHANGE     | N40°38.18′/W111°54.23′ |
| VPBRN | BARN                  | N40°54.28′/W112°10.15′ |
| VPCAP | STATE CAPITOL         | N40°46.67′/W111°53.25′ |
| VPCHS |                       | N40°42.28′/W112°05.92′ |
| VPCOP | BINGHAM COPPER MINE   | N40°31.38′/W112°09.00′ |
| VPCWY | CAUSEWAY              | N41°05.37′/W112°07.17′ |
| VPCYN | PARLEYS CANYON        | N40°42.67'/W111°48.10' |
| VPFPC | FREE PORT CENTER      | N41°05.92′/W112°02.27′ |
| VPFPK | FRANCIS PEAK          | N41°01.98′/W111°50.30′ |
| VPGFS | GARFIELD STACK        | N40°43.28′/W112°11.88′ |
| VPHVE | SPAGHETTI BOWL        | N40°43.50′/W111°54.22′ |
| VPJRT | JORDAN RIVER TEMPLE   | N40°35.02′/W111°55.58′ |
| VPKSL | KSL ANTENNA           | N40°46.80′/W112°05.80′ |
| VPLGN | LAGOON AMUSEMENT PARK | N40°59.08′/W111°53.57′ |
| VPMDH | MCKAY DEE HOSPITAL    | N41°11.50′/W111°57.08′ |
| VPMMT | MICROWAVE TOWERS      | N40°48.50′/W111°53.37′ |
| VPMSH |                       | N41°01.67′/W112°02.47′ |
| VPNSL |                       | N40°50.15′/W111°54.90′ |
| VPNTP |                       | N41°03.57′/W112°14.23′ |
| VPOGE | GRAIN ELEVATOR        | N41°13.13′/W112°00.45′ |
| VPOPS | POWER STATION         | N41°20.38′/W112°02.78′ |
| VPPEN | STATE PRISON          | N40°29.88'/W111°53.62' |
| VPPPT | PROMONTORY POINT      | N41°12.28′/W112°25.73′ |
| VPPTM | POINT OF THE MOUNTAIN | N40°27.42′/W111°54.83′ |
| VPPVO | PROVO CANYON          | N40°18.77′/W111°39.45′ |
| VPRWY |                       | N40°48.48′/W112°00.33′ |
| VPSLC | I-15/I-80 INTERCHANGE | N40°45.83′/W111°54.85′ |
| VPTIP | SOUTH TIP             | N40°50.93′/W112°10.92′ |
| VPWBR | WEBER CANYON          | N41°08.17′/W111°54.83′ |
| VPWBT |                       | N40°38.00′/W112°03.33′ |
|       |                       |                        |

# SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

| VPAIR | SALTAIR                 | N40°44.85′/W112°11.22′ |
|-------|-------------------------|------------------------|
| VPBEE | SOUTH INTERCHANGE       | N40°38.18′/W111°54.23′ |
| VPBRN | BARN                    | N40°54.28′/W112°10.15′ |
| VPCAP | STATE CAPITOL           | N40°46.67′/W111°53.25′ |
| VPCHS |                         | N40°42.28′/W112°05.92′ |
| VPCOP | BINGHAM COPPER MINE     | N40°31.38′/W112°09.00′ |
| VPCVI | CENTERVILLE INTERCHANGE | N40°55.30′/W111°53.43′ |
| VPCWY | CAUSEWAY                | N41°05.37′/W112°07.17′ |
| VPCYN | PARLEYS CANYON          | N40°42.67′/W111°48.10′ |
| VPFPC | FREE PORT CENTER        | N41°05.92′/W112°02.27′ |
| VPFPK | FRANCIS PEAK            | N41°01.98′/W111°50.30′ |
| VPGFS | GARFIELD STACK          | N40°43.28′/W112°11.88′ |
|       |                         |                        |

| WAYPOINT IDENT | COLLOCATED VFR CHECKPOINT | LOCATION               |
|----------------|---------------------------|------------------------|
| VPHVE          | SPAGHETTI BOWL            | N40°43.50′/W111°54.22′ |
| VPJRT          | JORDAN RIVER TEMPLE       | N40°35.02′/W111°55.58′ |
| VPKSL          | KSL ANTENNA               | N40°46.80′/W112°05.80′ |
| VPLGN          | LAGOON AMUSEMENT PARK     | N40°59.08'/W111°53.57' |
| VPMDH          | MCKAY DEE HOSPITAL        | N41°11.50′/W111°57.08′ |
| VPMMT          | MICROWAVE TOWERS          | N40°48.50′/W111°53.37′ |
| VPMSH          |                           | N41°01.67'/W112°02.47' |
| VPNSL          |                           | N40°50.15'/W111°54.90' |
| VPNTP          |                           | N41°03.57'/W112°14.23' |
| VPOGE          | GRAIN ELEVATOR            | N41°13.13′/W112°00.45′ |
| VPOPS          | POWER STATION             | N41°20.38′/W112°02.78′ |
| VPPEN          | STATE PRISON              | N40°29.88'/W111°53.62' |
| VPPPT          | PROMONTORY POINT          | N41°12.28′/W112°25.73′ |
| VPPTM          | POINT OF THE MOUNTAIN     | N40°27.42′/W111°54.83′ |
| VPPVO          | PROVO CANYON              | N40°18.77′/W111°39.45′ |
| VPRWY          |                           | N40°48.48'/W112°00.33' |
| VPSLC          | I-15/I-80 INTERCHANGE     | N40°45.83'/W111°54.85' |
| VPTIP          | SOUTH TIP                 | N40°50.93'/W112°10.92' |
| VPUOU          | U OF U EVENTS CENTER      | N40°45.73′/W111°50.28′ |
| VPWBR          | WEBER CANYON              | N41°08.17'/W111°54.83' |
| VPWBT          |                           | N40°38.00′/W112°03.33′ |
| VPZ00          | HOGLE ZOO                 | N40°45.00′/W111°48.95′ |

## SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

| VPLDP | DANA POINT               | N33°27.62′/W117°42.87′ |
|-------|--------------------------|------------------------|
| VPLSP | SIGNAL PEAK              | N33°36.33′/W117°48.63′ |
| VPOCN |                          | N33°14.15′/W117°26.63′ |
| VPSBC | BARONA CASINO            | N32°56.25′/W116°52.60′ |
| VPSBL |                          | N33°05.18′/W117°18.55′ |
| VPSBM | BLACK MOUNTAIN           | N32°58.87'/W117°07.00' |
| VPSCF |                          | N32°48.55′/W117°09.17′ |
| VPSCM | COWLES MOUNTAIN          | N32°48.72′/W117°01.97′ |
| VPSCP | CRYSTAL PIER             | N32°47.77′/W117°15.42′ |
| VPSCR |                          | N32°39.37′/W117°07.30′ |
| VPSFB | IRON MOUNTAIN            | N32°58.25′/W116°57.33′ |
| VPSLJ | LAKE JENNINGS            | N32°51.53′/W116°53.28′ |
| VPSMB |                          | N32°45.57′/W117°12.22′ |
| VPSMP |                          | N33°22.70′/W117°36.75′ |
| VPSMS | MOUNT SOLEDAD            | N32°50.40′/W117°15.10′ |
| VPSMV |                          | N32°45.75′/W117°09.80′ |
| VPSMW | MOUNT WOODSON            | N33°00.52′/W116°58.23′ |
| VPSOP | OTAY MESA PRISON         | N32°35.82′/W116°55.28′ |
| VPSOT | LOWER OTAY LAKE          | N32°37.73′/W116°55.38′ |
| VPSPL | SOUTH POINT LOMA         | N32°39.90′/W117°14.55′ |
| VPSPP | POWER PLANT              | N33°08.25′/W117°20.23′ |
| VPSQS | QUALCOMM STADIUM         | N32°46.98′/W117°07.23′ |
| VPSRT | DEL MAR RACE TRACK       | N32°58.58′/W117°15.95′ |
| VPSSM | SAN MIGUEL MOUNTAIN      | N32°41.78′/W116°56.18′ |
| VPSSV | SAN VICENTE ISLAND       | N32°55.53′/W116°55.00′ |
| VPSTP | TORREY PINES GOLF COURSE | N32°54.17′/W117°14.68′ |
| VPSVA |                          | N33°11.48′/W117°16.38′ |
|       |                          |                        |

## SAN FRANCISCO SECTIONAL CHART

VPKBG KINGSBURY GRADE N38°58.75′/W119°53.20′

## SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

| VPALT | ALTAMONT PASS            | N37°44.35′/W121°35.42′ |
|-------|--------------------------|------------------------|
| VPANT | ANTIOCH BRIDGE           | N38°01.45′/W121°45.02′ |
| VPBBR | BENICIA BRIDGE           | N38°02.50′/W122°07.45′ |
| VPCAL | CALAVERAS RESERVOIR      | N37°28.16′/W121°48.93′ |
| VPCBT | LAKE CHABOT              | N37°43.68′/W122°06.94′ |
| VPCOY | COYOTE HILLS             | N37°32.50′/W122°05.06′ |
| VPCQZ | CARQUINEZ BRIDGE         | N38°03.66′/W122°13.52′ |
| VPCRL |                          | N37°11.00′/W121°41.06′ |
| VPCRY | CRYSTAL SPRINGS CAUSEWAY | N37°30.56′/W122°21.10′ |

## SE, 17 DEC 2009 to 11 FEB 2010

**VFR WAYPOINTS** 

| VI K WALL SIMIS |                                  |                        |
|-----------------|----------------------------------|------------------------|
| WAYPOINT IDENT  | COLLOCATED VFR CHECKPOINT        | LOCATION               |
| VPCSH           | CAL STATE UNIVERSITY             | N37°39.52′/W122°03.52′ |
| VPDAM           | DEL VALLE DAM                    | N37°36.91′/W121°44.78′ |
| VPDLR           |                                  | N37°07.00′/W121°47.06′ |
| VPDUB           | DUBLIN                           | N37°42.06′/W121°55.36′ |
| VPEMB           | EMBASSY SUITES                   | N37°26.05′/W121°53.83′ |
| VPGGF           | GOLDEN GATE FIELDS               | N37°53.07′/W122°18.71′ |
| VPGIL           | GILROY                           | N37°01.37′/W121°33.99′ |
| VPHHH           | HAMILTON                         | N38°03.58′/W122°30.66′ |
| VPKG0           | KGO                              | N37°31.58′/W122°06.10′ |
| VPLEX           | LEXINGTON RESERVOIR              | N37°11.66′/W121°59.18′ |
| VPMID           | MID-SPAN SAN MATEO BRIDGE        | N37°36.28′/W122°11.81′ |
| VPMOR           | MORMON TEMPLE                    | N37°48.46′/W122°11.95′ |
| VPNUM           | NUMMI PLANT                      | N37°29.56′/W121°56.58′ |
| VPPAC           |                                  | N37°38.00′/W122°32.07′ |
| VPPRU           | PRUNEYARD                        | N37°17.33′/W121°56.01′ |
| VPSAR           | SARATOGA                         | N37°15.26′/W122°02.33′ |
| VPSLA           | SLAC/LINEAR ACCELERATOR          | N37°24.75′/W122°14.35′ |
| VPSTB           | STINSON BEACH                    | N37°54.45′/W122°40.41′ |
| VPSUN           | SUNOL GOLF COURSE                | N37°34.85′/W121°53.23′ |
| VPUTC           | U.T.C.                           | N37°13.93′/W121°41.35′ |
| VPWAL           | WALNUT CREEK                     | N37°53.78′/W122°04.30′ |
| VPWAM           |                                  | N37°30.28′/W122°10.00′ |
| VPWFR           | CEMENT PLANT                     | N37°30.88′/W122°12.26′ |
|                 | TAMPA/ORLANDO TERMINAL AREA CHAR | RT/FLYWAY CHART        |
| VPBOV           |                                  | N27°57.00′/W080°46.75′ |
| VPCNY           |                                  | N28°30.00′/W080°45.00′ |
| VPDAD           | DADE CITY                        | N28°22.57′/W082°11.25′ |
| VPDFI           |                                  | N29°00.17′/W081°20.85′ |
| VPDUT           |                                  | N27°37.70′/W082°09.10′ |
| VPEAR           | CLEARWATER BEACH                 | N27°58.67′/W082°49.83′ |
| VPFFU           |                                  | N28°57.08′/W081°00.33′ |
| VPGPE           | ST PETE BEACH                    | N27°43.50′/W082°44.67′ |
| VPHUC           |                                  | N28°19.87′/W082°43.77′ |
| VPKER           | LAKE PARKER                      | N28°04.00′/W081°56.00′ |
| VPLEV           |                                  | N28°48.00′/W080°52.00′ |
|                 |                                  |                        |

# WASHINGTON SECTIONAL CHART

N29°00.00'/W080°51.00'

| VPACE | <br>N38°07.82′/W076°48.75′ |
|-------|----------------------------|
| VPAXI | <br>N38°34.57′/W076°20.38′ |
| VPBRA | <br>N36°13.75′/W076°08.08′ |
| VPGCE | <br>N36°03.90′/W076°36.42′ |
| VPWZO | <br>N36°00.87′/W075°40.07′ |

VPLJA

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## **VOR RECEIVER CHECK**

## VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual. Basic Flight Information and ATC Procedures.

NOTE: Under columns headed "Type of Checkpoint" & "Type of VOT Facility" G stands for ground. A/ stands for airborne followed by figures (2300 or 1000–3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

# ALABAMA VOR RECEIVER CHECKPOINTS

| Facility Name (Arpt Name)    | Freq/Ident | Type<br>Check<br>Pt.<br>Gnd.<br>AB/ALT | Azimuth<br>from<br>Fac.<br>Mag | Dist.<br>from<br>Fac.<br>N.M. | Checkpoint Description  |
|------------------------------|------------|--|--------------------------------|-------------------------------|---|
| Brookley (Mobile Downtown)   | 112.8/BFM  | G                                      | 313                            | 1.68                          | On runup area for rwy 14.  VOR grand receiver checkpoint OTS indef. |
| Cairns AAF (Fort Rucker)     | 111.2/0ZR  | G                                      | 066                            | 1.0                           | On runup pad Twy F.   |
| Enterprise Muni              | 116.6/EDN  | A/2000                                 | 341                            | 7.4                           | Red/white twr.  |
| Monroeville (Monroe Co Arpt) | 116.8/MVC  | G                                      | 196                            | 0.6                           | Rwy 03 runup<br>area/turnaround pad.                                |
| Montgomery (Montgomery Rgnl/ |            |  |                                |                               |   |
| Dannelly Field)              | 112.1/MGM  | G                                      | 318                            | 6.2                           | On Twy C north of Twy A.  |
| Talladega Muni               | 108.8/TDG  | A/2000                                 | 084                            | 9.0                           | Over center of segmented circle.                                    |
| Crimson (Tuscaloosa Rgnl)    | 117.8/LDK  | G                                      | 238                            | 4.2                           | On centerline of Twy midway between ramp and rwy.                   |

## **VOR TEST FACILITIES (VOT)**

| Facility Name                 |       |          |         |
|-------------------------------|-------|----------|---------|
| (Airport Name)                | Freq. | Facility | Remarks |
| Birmingham-Shuttlesworth Intl | 110.0 | G        |         |

Huntsville Intl-Carl T Jones Fld ...... 111.0

# FLORIDA VOR RECEIVER CHECKPOINTS

|                                |  | Type<br>Check<br>Pt.<br>Gnd. | Azimuth<br>from<br>Fac.  | Dist.<br>from<br>Fac.    |   |
|--------------------------------|--|------------------------------|--------------------------|--------------------------|---|
| Facility Name (Arpt Name)      | Freq/Ident                                       | AB/ALT                       | Mag                      | N.M.                     | Checkpoint Description  |
| Cypress (Naples Muni)          | 108.6/CYY<br>115.9/CEW<br>116.0/LAL<br>116.0/LAL | G<br>A/1200<br>G<br>G        | 121<br>106<br>038<br>283 | 0.6<br>8.6<br>0.5<br>1.1 | On runup area Rwy 32.<br>Over rotating bcn.<br>On NE end of Twy C.<br>On Twy A–1. |
| Melbourne Intl                 | 110.0/MLB  | G                            | 184                      | 0.6                      | SW corner of arpt at intersection of Twy C and D.                                 |
| Ocala Intl-Jim Taylor Fld      | 113.7/0CF  | G                            | 167                      | 1.0                      | On taxiway E adjacent to E9.  |
| Orlando (Executive)            | 112.2/ORL  | G<br>G                       | 324<br>311               | .5<br>.5                 | On Twy E near AER 13.<br>On Twy H near AER 13.                                    |
| Pahokee (Palm Beach Co Glades) | 115.4/PHK  | A/1500                       | 022                      | 13                       | Over radio twr at intersection of 2 canals.                                       |
| Panama City-Bay Co Intl        | 114.3/PFN  | G                            | 190                      | 0.5                      | Main terminal ramp.   |

|                                |            | Type<br>Check<br>Pt.<br>Gnd. | Azimuth<br>from<br>Fac. | Dist.<br>from<br>Fac. |                                       |
|--------------------------------|------------|------------------------------|-------------------------|-----------------------|---------------------------------------|
| Facility Name (Arpt Name)      | Freq/Ident | AB/ALT                       | Mag                     | N.M.                  | Checkpoint Description                |
|                                |            | G                            | 154                     | 0.6                   | Rwy 32 run-up/Twy G.                  |
|                                |            | G                            | 208                     | 0.6                   | Rwy 5 run-up/Twy D.                   |
| St. Petersburg-Clearwater Intl | 116.4/PIE  | G                            | 046                     | 0.4                   | On circle located NE end of<br>Twy M. |
| Vero Beach Muni                | 117.3/VRB  | G                            | 111                     | 4.4                   | Runup area Rwy 29R.                   |
|                                |            | G                            | 114                     | 4                     | Compass rose on taxiway E.            |
|                                |            | G                            | 116                     | 3.6                   | Runup area Rwy 11R.                   |
| V                              | OR TEST FA | CILITIES                     | (VOT)                   |                       |                                       |
| Facility Name                  |            | Tyne VOT                     |                         |                       |                                       |

| Facility Name      |       | Type VOT |                       |
|--------------------|-------|----------|-----------------------|
| (Airport Name)     | Freq. | Facility | Remarks               |
| Daytona Beach Intl | 111.0 | G        |                       |
| Jacksonville Intl  | 111.0 | G        | Unuseable E of Twy F. |
| Miami Intl         | 112.0 | G        |                       |
| Palm Beach Intl    | 109.0 | G        |                       |
| Tallahassee Rgnl   | 111.0 | G        |                       |
| Tamna Intl         | 111 0 | G        |                       |

# **GEORGIA**

## **VOR RECEIVER CHECKPOINTS**

| VUI                            | K KECEIVEI  | CHECK                                  | PUINTS                          |                               |   |
|--------------------------------|---|--|---------------------------------|-------------------------------|---|
| Facility Name (Arpt Name)      | Freq/Ident  | Type<br>Check<br>Pt.<br>Gnd.<br>AB/ALT | Azimuth<br>from<br>Fac.<br>Mag  | Dist.<br>from<br>Fac.<br>N.M. | Checkpoint Description  |
| Athens (Madison Muni)          | 109.6/AHN<br>109.6/AHN<br>116.6/PDK                           | A/2000<br>G<br>G                       | 199<br>284<br>004               | 21<br>0.5<br>0.5              | Over center of rwy. Twy A2. On runup area Rwy 20L. VOR ground checkpoint unavailable.                         |
| Brunswick (Malcolm McKinnon)   | 109.8/SSI   | G<br>A/1050                            | 218<br>029                      | 0.5<br>7.2                    | On runup area Rwys 02L<br>and 02R.<br>Over rotating bcn.  |
| Columbus Metropolitan          | 117.1/CSG   | G                                      | 146                             | 7.1                           | FBO ramp in front of ASOS equipment.  |
| Dublin (W H 'Bud' Barron)      | 113.1/DBN<br>113.4/ODF<br>111.6/SVN<br>111.6/SVN<br>111.4/LSF | G<br>A/2000<br>A/1500<br>G<br>G        | 270<br>179<br>090<br>271<br>356 | 7.6<br>6<br>15.5<br>1.2<br>.6 | Ramp. Over rotating bcn. Over lighthouse. On Twy 6. On painted circle at taxiway intersection 580' NW of twr. |
| Macon                          | 114.2/MCN   | A/2000<br>A/2000                       | 028<br>320                      | 13.6<br>9.5                   | Over oil tank. Over dam.  |
| Pecan (Southwest Georgia Rgnl) | 116.1/PZD   | A/1000                                 | 145                             | 9                             | Over rotating bcn E side of arpt.   |
| Rome (Richard B Russel)        | 115.4/RMG   | G                                      | 348                             | 11.5                          | At intersection of twy 200'<br>S of terminal building.<br>VOR ground checkpoint<br>unavailable.               |
| Savannah                       | 112.7/SAV   | A/1500                                 | 097                             | 19.6                          | Over red and white lighthouse.  |
| Valdosta Rgnl                  | 114.8/0TK   | G                                      | 131                             | 0.6                           | On taxiway at apch end rwy 35.  |
| Vienna (Crisp County-Cordele)  | 116.5/VNA<br>110.2/AYS  | A/1300<br>A/1200                       | 226<br>099                      | 19<br>8                       | Over center of NE/SW rwy.  Over fire twr W side arpt.   |

# VOR RECEIVER CHECK VOR TEST FACILITIES (VOT)

| Facility Name                             |       | Type VOT |                |
|---|-------|----------|----------------|
| (Airport Name)                            | Freq. | Facility | Remarks        |
|   |       | _        |                |
| Atlanta (Hartsfield-Jackson Atlanta Intl) | 111.0 | G        |                |
| (Atlanta Muni)                            | 111.0 | G        | VOT OTS indef. |
| Brunswick Golden Isles                    | 111.0 | G        |                |
| Cayannah /Hilton Hoad Intl                | 111 0 | C        |                |

## **KENTUCKY**

## **VOR RECEIVER CHECKPOINTS**

| Facility Name (Arpt Name)   | Freq/Ident             | Type<br>Check<br>Pt.<br>Gnd.<br>AB/ALT | Azimuth<br>from<br>Fac.<br>Mag | Dist.<br>from<br>Fac.<br>N.M. | Checkpoint Description                                |
|---|------------------------|--|--------------------------------|-------------------------------|---|
| Central City (Muhlenberg Co)                                      | 109.8/CCT              | A/2500                                 | 153                            | 10.6                          | Over intersection of Rwy 23 and central taxiway.      |
| Clarksville (Campbell AAF)  | 110.6/CKV              | G                                      | 307                            | 4.9                           | On taxiway 6 center romeo helipad.                    |
| Clarksville (Hopkinsville–Christian Co)<br>Fort Knox (Godman AAF) | 110.6/CKV<br>109.6/FTK | A/2000<br>A/2000                       | 345<br>270                     | 13.5<br>9.2                   | Over hangar.<br>W of Godman AAF over a<br>298 ft twr. |
| Frankfort (Capital City)<br>London (London–Corbin Arpt–Magee      | 109.4/FFT              | G                                      | 082                            | .7                            | Runup pad Rwy 24.                                     |
| Fld)  | 116.1/LOZ              | G                                      | 033                            | 3.8                           | On parking ramp taxiway entry.                        |
| Owensboro-Daviess Co  | 108.6/OWB              | G                                      | 176                            | .7                            | On taxiway at apch end<br>Rwy 36.                     |

# **VOR TEST FACILITIES (VOT)**

|       | Type VOT |                |
|-------|----------|----------------|
| Freq. | Facility | Remarks        |
| 111 0 | G        |                |
|       | Freq.    | Freq. Facility |

# VOR RECEIVER CHECK NORTH CAROLINA

## **VOR RECEIVER CHECKPOINTS**

|                                       |            | Type   |         |       |  |
|---------------------------------------|------------|--------|---------|-------|--|
|                                       |            | Check  | Azimuth | Dist. |  |
|                                       |            | Pt.    | from    | from  |  |
|                                       |            | Gnd.   | Fac.    | Fac.  |  |
| Facility Name (Arpt Name)             | Freq/Ident | AB/ALT | Mag     | N.M.  | Checkpoint Description                               |
| Barretts Mountain (Hickory Rgnl)      | 110.8/BZM  | A/2200 | 229     | 10.2  | Over apch end Rwy 24.                                |
| Cofield (Tri-Co)                      | 114.6/CVI  | A/4500 | 259     | 15.3  | Distance 20/25.                                      |
| Fayetteville Rgnl/Grannis Fld         | 108.8/FAY  | G      | 278     | 0.6   | On runup area Rwy 04.                                |
| Greensboro (Lexington Muni)           | 116.2/GS0  | A/2300 | 228     | 22    | Over rotating bcn atop W end of building.            |
| Greensboro (Piedmont Triad Intl)      | 116.2/GS0  | G      | 036     | 3.5   | On Twy M3. Checkpoint<br>OTS indef.                  |
| Greensboro (Smith Reynolds)           | 116.2/GS0  | A/2000 | 297     | 13.5  | Over atct.   |
| Kinston Rgnl Jetport At Stallings Fld | 109.6/ISO  | G      | 230     | 3.1   | Twy A between A4 and A5.                             |
| Raleigh-Durham Intl                   | 117.2/RDU  | G      | 244     | 0.85  | At end of taxiway to Rwy 05R.                        |
| Sugarloaf Mountain (Asheville Rgnl)   | 112.2/SUG  | A/3200 | 280     | 13.6  | Over atct. Airborne<br>checkpoint unusable<br>indef. |
| Tar River                             | 117.8/TYI  | A/1500 | 260     | 5.8   | Over smoke stack at power house.                     |

## **VOR TEST FACILITIES (VOT)**

| Facility Name<br>(Airport Name) Freq.           |  | Type VOT<br>Facility | Remarks |
|---|--|----------------------|---------|
| Charlotte (Charlotte/Douglas Intl) Hickory Rgnl |  | G<br>G               |         |

## **SOUTH CAROLINA**

## **VOR RECEIVER CHECKPOINTS**

|                               |               | Type<br>Check<br>Pt. | Azimuth<br>from | Dist.<br>from |                                       |
|-------------------------------|---------------|----------------------|-----------------|---------------|---------------------------------------|
| Facility Name (Appl Name)     | For a distant | Gnd.                 | Fac.            | Fac.          | Observation Description               |
| Facility Name (Arpt Name)     | Freq/Ident    | AB/ALT               | Mag             | N.M.          | Checkpoint Description                |
| Charleston AFB/Intl           | 113.5/CHS     | G                    | 225             | .7            | Runup pad Rwy 03.                     |
|                               | 113.5/CHS     | G                    | 009             | .5            | Runup pad Rwy 21.                     |
|                               | 113.5/CHS     | G                    | 337             | 1.2           | Runup pad Rwy 15.                     |
|                               | 113.5/CHS     | G                    | 331             | 0.3           | Runup area for Rwy 33.                |
| Electric City (Anderson Rgnl) | 108.6/ELW     | G                    | 039             | 5.5           | On ramp in front of<br>terminal bldg. |
| Grand Strand                  | 117.6/CRE     | A/1100               | 238             | 6             | Over white water tank.                |
|                               | 117.6/CRE     | G                    | 213             | 0.7           | On runup pad Rwy 05.                  |
| Greenwood Co                  | 115.5/GRD     | G                    | 250             | .7            | End of taxiway at Rwy 09              |

## **VOR TEST FACILITIES (VOT)**

| Facility Name       | Type VOT |          |         |
|---------------------|----------|----------|---------|
| (Airport Name)      | Freq.    | Facility | Remarks |
| Charleston AFB/Intl | 111.0    | G        |         |

# VOR RECEIVER CHECK TENNESSEE

## **VOR RECEIVER CHECKPOINTS**

| Facility Name (Arpt Name)                                  | Freq/Ident | Type<br>Check<br>Pt.<br>Gnd.<br>AB/ALT | Azimuth<br>from<br>Fac.<br>Mag | Dist.<br>from<br>Fac.<br>N.M. | Checkpoint Description                               |
|--|------------|--|--------------------------------|-------------------------------|--|
| Hinch Mountain (Crossville<br>Memorial-Whitson Fld)        | 117.6/HCH  | A/2900                                 | 336                            | 11                            | Over metal hangar.                                   |
| ,  | 117.6/HCH  | G                                      | 335                            | 11.5                          | Runup area between taxiway and rwy at center of fld. |
| Holston Mountain (Tri-Cities Rgnl TN/VA)                   | 114.6/HMV  | G                                      | 286                            | 13.7                          | On ramp S of terminal building.                      |
| Jackson (McKellar–Sipes Rgnl)                              | 112.0/MKL  |  | 256                            | 0.6                           | At south end of ramp at fire station.                |
| Nashville (Lebanon Muni)<br>Tullahoma Rgnl/Wm Northern Fld | 114.1/BNA  | A/2000<br>A/1800                       | 082<br>003                     | 18<br>5.0                     | Over midfield.<br>Over Normandy Dam.                 |

## **VOR TEST FACILITIES (VOT)**

| Facility Name<br>(Airport Name) | Freq. | Type VOT<br>Facility | Remarks |
|---------------------------------|-------|----------------------|---------|
| Knoxville (McGhee-Tyson)        | 112.0 | G                    |         |
| Memphis Intl                    | 111.0 | G                    |         |
| Nashville Intl                  | 108.6 | G                    |         |
| Smyrna                          | 110.2 | G                    |         |

## **PUERTO RICO**

## **VOR RECEIVER CHECKPOINTS**

|                              |            | Туре          |      |       |                        |
|------------------------------|------------|---------------|------|-------|------------------------|
|                              |            | Check Azimuth |      | Dist. |                        |
|                              |            | Pt.           | from | from  |                        |
|                              |            | Gnd.          | Fac. | Fac.  |                        |
| Facility Name (Arpt Name)    | Freq/Ident | AB/ALT        | Mag  | N.M.  | Checkpoint Description |
| Borinquen (Rafael Hernandez) | 113.5/BQN  | G             | 271  | 2.2   | On apch end of Rwy 08. |

## **VIRGIN ISLANDS**

## **VOR RECEIVER CHECKPOINTS**

| Facility Name (Arpt Name)    | Freq/Ident | Type<br>Check<br>Pt.<br>Gnd.<br>AB/ALT | Azimuth<br>from<br>Fac.<br>Mag | Dist.<br>from<br>Fac.<br>N.M. | Checkpoint Description                                      |
|------------------------------|------------|--|--------------------------------|-------------------------------|---|
| Saint Thomas (Cyril E. King) | 108.6/STT  | G                                      | 118                            | 3.5                           | On taxiway North of Main ramp. VOR gnd checkpoint unusable. |

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The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations, Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

- (1) Be in operation for at least 1 year.
- (2) Operate year round (at least on weekends).
- (3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

| LOCATION                             | DISTANCE AND RADIAL FROM<br>NEAREST VOR/VORTAC | MAXIMUM<br>ALTITUDE | REMARKS   |
|--------------------------------------|--|---------------------|---|
|                                      | ALABAMA  |                     |   |
| Allen Army Heliport                  | 11 NM; 253° Wiregrass                          | 12,500              | 1 NM radius. SR-SS weekends and holidays.                         |
| (c) Bayou La Batre, Roy E.Ray Arpt   | 12 NM; 217° Brookley                           | 12,500              | Daily SR-SS   |
| Bessemer, Old Bessemer Arpt          | 16 NM; 057° Brookwood                          | 10,000              | 1030-SS weekends  |
| (c) Cullman, Folsom Fld Arpt         | 36 NM; 001° Vulcan                             | 14,500              | 3 NM radius. SR-SS Sat-Sun, other times by NOTAM.                 |
| (c) Dothan, Hatch Army Heliport      | 10.3 NM; 290° Wiregrass                        | 12,500 AGL          | 1 NM SR-SS weekends and holidays.                                 |
| (c) Elberta, Horak Arpt              | 11 NM; 268° Saufley                            | 14,000              | Daily 0700-1/2 hour after SS.                                     |
| Ellis Drop Zone                      | 15 NM; 220° Decatur                            | 1,500               | 0.4 NM radius. Occasional use                                     |
| Eutaw Muni Arpt                      | 30 NM; 200° Crimson                            | 13,000 AGL          | Weekends and holidays   |
| Gadsden, Northeast Alabama Rgnl Arpt | 3 NM; 230° Gadsden                             | 14,000              | Weekends and holidays 0900-SS.                                    |
| Harvest, Epps Arpk                   | 9 NM; 297° Rocket                              | 13,500              | Daily SR-SS   |
| (c) Hazel Green                      | 7 NM; 355° Rocket                              | 14,000              | 7 NM radius. Daily SR-SS. Occasional night use.                   |
| Headland Muni Arpt                   | 8 NM; 070° Wiregrass                           | 15,000              | Weekdays 1200-SS; Sat-Sun, and holidays SR-SS                     |
| Jones Drop Zone                      | 6 NM; 276° Rocket                              | 1,500               | 0.25 NM radius. Occasional use                                    |
| Kilby Drop Zone                      | 13 NM; 014° Montgomery                         | 1,500               | 0.2 NM radius. Occasional use                                     |
| Moundville Arpt                      | 18 NM; 198° Tuscaloosa                         | 12,000 AGL          | 5 NM radius. 0900–SS on weekends, occasionally weekdays by Notam. |
| Pell City, St Clair Co Arpt          | 10 NM; 263° Talladega                          | 15,500              | 5 NM radius. SR-SS daily except<br>Mon-Tue.                       |
| Pinson, Industrial Park              | 12 NM; 085° Vulcan                             | 10,500              | 0800–SS Sat–Sun, occasionally weekday and ngt use.                |
| Prattville-Grouby Fld Arpt           | 17 NM; 300° Montgomery                         | 2,000               | 10NM radius. For specific times call 334–953–7325.                |
| Redstone Drop Zone                   | 9 NM; 220° Rocket                              | 1,500               | 0.2 NM radius. Occasional use                                     |
| Renda Drop Zone                      | 8 NM; 234° Talledega                           | 1,500               | 0.25 NM radius. Occasional use                                    |
| Tac Runkle Drop Zone                 | 19 NM; 280° Cairns                             | 3,500 AGL           | Occasional use  |
| Tommy Drop Zone                      | 17 NM; 235° Montgomery                         | 1,500               | 0.2 NM radius. Occasional use                                     |
| (c) Tuskegee, Moton Fld Muni         | 2 NM; 198° Tuskegee                            | 12,500              | 3 NM radius. Occasionally on weekends.                            |
| Vincent                              | 37 NM; 130° Vulcan                             | 10,000              | 5 NM radius. Weekends 0900-SS.                                    |
| Warrior                              | 11 NM; 350° Vulcan                             | 12,500              | Daily SR-SS   |
| Weaver, McMinn Arpt                  | 15 NM; 047° Talladega                          | 12,500              | 1 NM radius. Daily SR-SS, occasional night use.                   |
| (c) Wetumpka Muni                    | 18 NM; 356° Montgomery                         | 10,000              | Daily SR-SS   |
|                                      | FLORIDA  | 45.000              | 5.114 " 05.00 "   |
| Arcadia Muni                         |  | 15,000              | 5 NM radius. SR–SS daily, occasional ngt use.                     |
| Avon Park Executive Arpt             |  | 4,000               | 4 NM radius. Daily SR-SS  |
| Brandon, Sod Farm                    |  | 15,000              | 0830–1830 weekends  |
| (c) Bunnell, Flagler County Arpt     |  | 14,000              | 3 NM radius. SR–SS daily.<br>Occasional nights.                   |
| Chassahowitzka Drop Zone             | 38 NM; 010° St. Petersburg                     | 4,000               | 0.25 NM radius. Occasional use                                    |

| LOCATION   | DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC    | MAXIMUM<br>ALTITUDE  | REMARKS   |
|--|--|----------------------|---|
| (c) Clewiston, Airglades Arpt  | 19 NM; 097° LaBelle                            | 13,500               | 1 NM radius. Daily SR-SS  |
| (c) Coleman, Freeflight Arpt   | 24 NM; 155° Ocala                              | 15,000               | 3 NM radius. Daily SR-SS.   |
| (c) Deland Muni–Sidney H Taylor Fld  | 17 NM; 210° Ormond Beach                       | 15,000               | 1 NM radius. SR-SS Sat, Sun, occasionally weekdays.   |
| Englewood, Buchan Arpt   | 27 NM; 158° Sarasota                           | 15,000 AGL           | 2 NM radius. Sunday 1000-SS   |
| Florabama Drop Zone  | 16 NM; 216° Saufley                            | 14,000               | 2 NM radius. Fri-Sun 0830-SS.   |
| (c) Homestead General Aviation   |  | 15,000               | 5 NM radius. 24 hrs daily.  |
| Jacksonville, Herlong Arpt   |  | 15,000               | 1 NM radius. Daily SR-SS with<br>prior notification to JAX APP<br>CON.                                      |
| Key West   | 1 NM; 095° Key West                            | 7,000                | 0.2 NM radius. Occasional use.  |
| (c) La Belle, Sundance Farms Arpt<br>(c) Lake Wales Muni                         | 5.4 NM; 245° La Belle                          | 12,500<br>18,000     | 1 NM radius. Daily SR–SS. 7 NM radius, 24 hrs daily. <b>Miami</b> Center 127.2                              |
| (c) MacDill AFB(c) Melanie's Arpt  |  | 10,000<br>13,000     | 0600-1100 Sun. Over Rwy 31<br>3 NM radius. SR-SS Sat-Sun,<br>holidays and other times by<br>NOTAM.          |
| (c) Myakka City(c) New Smyrna Beach, Massey Ranch                                | 18 NM; 097° Sarasota                           | 12,500               | 5 NM radius, 24 hrs daily   |
| Airpark  | 22 NM; 150° Ormond Beach                       | 15,000               | 1 NM radius SR-SS weekends, occasionally weekdays.  |
| (c) Palatka Muni–Lt. Kay Larkin Fld<br>(c) Pahokee, Palm Beach Co Glades<br>Arpt | 36 NM; 079° Gainesville<br>at Pahokee          | 12,500<br>17,500     | 3 NM radius. Daily, SR-SS<br>3 NM radius, 0800-1800 daily.  |
| (c) Quincy Muni Arpt   | 10 NM; 288° Seminole                           | 15,000               | Daily SR-SS   |
| St. Augustine  | 35 NM; 159° Craig                              | 12,500               | Sat-Sun occasionally weekdays   |
| (c) Sebastian Muni   |  | 14,000               | 2 NM radius. Daily SR-SS.   |
| (c) Shell Creek Airpark  | 27.5 NM; 347° Lee County                       | 13,000               | 1 NM radius. SR-SS weekends, holidays.  |
| (c) Sugar Loaf Shores Arpt   |  | 14,000               | 2 NM radius. SR-SS.   |
| Sun City   |  | 12,500               | 4 NIM and the OD OD dollar  |
| (c) Titusville, Arthur Dunn Air Park<br>(c) Umatilla Muni Arpt                   |  | 13,500<br>13,000 AGL | NM radius, SR-SS daily.     NM radius. SR-SS. Occasional night use.   |
| Wakulla Co Arpt  | 35 NM; 180° Seminole                           | 13,500               | 3 NM radius. SR-SS weekends<br>occasionally weekdays.<br>Tallahassee Rgnl Tower 135.8                       |
| (C) Williston Muni Arpt  |  | 11,000               | 2.5 NM radius. SR-SS Fri, Sat and Sun. Jacksonville Center 118.6  |
| (c) Zephyrhills Muni   | 16 NM; 330° Lakeland                           | 20,000               | E of Rwy 18-36. Daily SR-2300   |
| Bunker Hill Drop Zone  |  | 8,000                | 1 NM radius. SR-1 hr after SS   |
| Duilker IIII DTOP ZOITE  | 10 NW, 233 Halls                               | 8,000                | daily, irregular intervals. Mass<br>military jumps from multiple<br>acft.                                   |
| (c) Cedartown, Polk Co Arpt–Cornelius<br>Moore Fld                               | 9 NM; 188° Rome                                | 15,000               | 3 NM radius. SR-SS daily, occasionally nights.  |
| Claxton–Evans Co Arpt(c) Dahlonega, Lumpkin County                               | 33.6 NM; 276° Savannah                         | 7,500                | 0900-SS Sat and Sun   |
| Arpt, Wimpy Drop Zone  | 23 NM; 193° Harris                             | 15,000               | 1 NM radius. SR to 1 hr after SS<br>daily irregular intervals. Mass<br>military jumps from multiple acft.   |
| Dahlonega Highway 76 Drop Zone   | 11 NM; 231° Harris                             | 3,000                | Occasional use.   |
| Fort Benning, Box Spring Drop Zone   | 24.5 NM; 116° Columbus                         | 3,000                | Occasional use.   |
| Fort Benning, Eelbeck Drop Zone<br>(c) Fort Benning, EuBanks Drop Zone           | 17.5 NM; 131° Columbus<br>16 NM; 171° Columbus | 3,000<br>12,500      | Occasional use.<br>Daily 0500–1900  |
| (c) Fort Benning, Fryar Field Drop Zone  | 22.5 NM; 168°Columbus                          | 13,000               | 0.5 NM radius, Continuous.  |
| (c) Fort Benning, Gardner Drop Zone  |  | 12,500               | Daily 0500–1900   |
| Fort Benning, Lawson AAF (Fort<br>Benning)                                       | 1.8 NM; 046° Lawson                            | 12,500               | 1 NM radius. Daily SR-SS  |
| Fort Benning, Lae Drop Zone  | 21 NM; 166° Columbus                           | 3,000                | Occasional use  |
| Fort Benning, Ledo Drop Zone   | 14 NM; 090° Lawson                             | 3,000                | Occasional use  |
| Fort Benning, McKenna Drop Zone  | 10 NM; 080° Columbus                           | 3,000                | Occasional use  |
| (c) Fort Benning, York Drop Zone   |  | 12,500               | Daily 0500-1900   |
| Fort Valley, Miami Valley Farms Arpt<br>Locust Grove, Mallards                   |  | 14,000               | 1 NM radius, Daily 0900-SS  |
|  | 17.5 NM; 118° Atlanta                          | 13,500               | Sat, Sun and holidays SR–SS.  Occasional ngt jumps  |
| (c) Monroe–Walton Co ArptPlantation Airpark, Moore Drop Zone                     | 36 NM; 332° Savannah                           | 13,500<br>1,500 AGL  | 5 NM radius. Daily 0800–2100.<br>1 NM radius. Occasional use.<br>Mass Military jumps from<br>multiple acft. |
| (c) Rome, Richard B. Russell Arpt<br>St Marys Arpt                               |  | 15,000<br>12,000     | 5 NM radius. SR-SS Weekends.<br>2 NM radius. Daily 0700-1859.   |

## PARACHUTE JUMPING AREAS

| LOCATION Thomaston-Upson Co                                | DISTANCE AND RADIAL FROM<br>NEAREST VOR/VORTAC<br>35 NM; 296° Macon | MAXIMUM<br>ALTITUDE<br>14,500 | REMARKS 1 NM radius. Sat–Sun occasionally  |
|--|---|-------------------------------|--|
| Tifton Henry Tift Myers Arnt                               | 1 NM; 090° Tift Myers   | 15,000                        | weekdays.<br>5 NM radius. Daily 0700–1800.   |
|  | 8 NM; 100° Waycross   | 12,500                        | 1 NM radius. Daily 1000–1800.  |
|  | 14 NM; 245° Harris  | 8,000                         | 1 NM radius. SR to 1 hr after SS daily, irregular intervals. Mass military jumps from multiple acft. |
|  | KENTUCKY  |                               |  |
| Elizabethtown, Addington Fld                               | 12 NM; 285° New Hope  | 11,000                        | 3 NM radius, SR-SS Weekends and noon-SS weekdays.  |
| Elkton, Standard Fld(c) Flemingsburg, Fleming Mason Arpt . | 16 NM; 045° Clarksville<br>27 NM; 103° Falmouth                     | 12,000<br>12,500              | 5 NM radius. Continuous.<br>1 NM radius. SR-SS Sat-Sun and<br>holidays.                              |
| Ft. Campbell, Bastogne Drop Zone                           | 8 NM; 274° Clarksville  | 3,000                         | 0600–2330 Mon–Fri and occasional weekends. Military use.   |
| Ft. Campbell, Corregidor Drop Zone                         | 11 NM; 270° Clarksville   | 3,000                         | 0600–2330 Mon–Fri and occasional weekends. Military  |
| Ft. Campbell, Los Banos Drop Zone                          | 10 NM; 270° Clarksville   | 3,000                         | use.<br>0600–2330 Mon–Fri and<br>occasional weekends. Military                                       |
| Ft. Campbell, Suckchon Drop Zone                           | 10 NM; 270° Clarksville   | 3,000                         | use.<br>0600–2330 Mon–Fri and<br>occasional weekends. Military                                       |
| Glasgow Muni Arpt  | 24 NM; 073° Bowling Green   | 8,000                         | use. 5 mi radius. SR-SS weekends and holidays  |
| (c) Greenville, Muhlenberg Co Arpt                         | 10 NM; 149° Central City  | 13,500                        | 5 mi. radius. Daily SR-SS.   |
|  | 7 NM; 149° Central City   | 2,000                         | 2 NM radius. Intermittent. Military use.   |
| (c) Hopkinsville–Christian Co                              | 14 NM; 352° Clarksville   | 14,500                        | 3 NM radius, 0900–1600 Tue–Fri;<br>occasional weekends.  |
| Owensboro, Windy Hollow Drag Strip                         | 6 NM; 205° Owensboro  | 8,000                         | 2 NM radius. 0800–SS Sun,<br>holidays occasionally other<br>times                                    |
|  | NODTH CARCLINA  |                               | umes   |
|  | NORTH CAROLINA  |                               |  |
| (c) Cherry Point, Cannon Drop Zone                         | 9 NM; 184° Cherry Point Tacan                                       | 10,500                        | 3 NM radius. Weekends and holidays, occasional use weekdays.   |
|  | 22 NM; 030° Fayetteville  | 4,500                         | 1 NM radius. Sat & Sun afternoons  |
| (c) Fayetteville, Southern Comforts Arpt                   | 9 NM; 220 Fayetteville  | 14,000                        | 3 NM radius. Fri–Mon and holidays SR–SS.   |
| Greensboro, Southeast Greensboro Arpt                      | 18 NM; 115° Greensboro  | 12,000                        | 1 NM radius. 0800–2000 Sat and Sun.  |
|  | 8 NM; 339° Liberty  | 11,000                        | 3 NM radius. 0800-1600 Fri-Sun.  |
|  | 22 NM; 040° Kinston<br>27 NM; Barretts Mountain                     | 15,500<br>15,000              | Daily SR–SS.<br>3 NM radius. SR–SS daily,  |
| (c) Julicaville, awaii of cert Alpt                        | 27 NW, Barretts Wountain  | 15,000                        | occasional night.  |
|  | 22 NM; 060° Raleigh–Durham  | 15,500                        | 30 min before SR-30 min after SS daily. Occasional ngt.  |
|  | 13 NM; 152° Sandhills<br>11 NM; 150° Sandhills                      | 17,500<br>17,500              | 0600–1900 Daily.<br>Continuous.  |
|  | 26 NM; 250° Fayetteville  | 13,500                        | 0800–1700 Mon–Fri.   |
|  | 29 NM; 296° Raleigh/Durham  | 12,000                        | 1 NM radius. 0900–SS Weekends;<br>occasionally other times.  |
|  | 8.75 NM; 143° Sandhills   | 12,500                        | Sat, Sun and holidays. Weekdays on request.  |
|  | 17 NM; 280° Fayetteville  | 12,500 AGL                    | Continuous.  |
| (C) KOCKY MOUNT  | 9.5 NM; 285° Tar River<br>27.2 NM; 209° Wilmington                  | 12,500                        | Sat, Sun and holidays 0900–SS.   |
| Thomasville. Fairgrove Arnt                                | 13 NM; 201° Greensboro  | 12,000<br>14,000              | 3 NM radius. 0800–2100 daily. Weekends and holidays.   |
|  | 23 NM; 351° Wilmington  | 15,000 AGL                    | 3 NM radius. Sat–Sun SR–SS.  |
|  | 27.6 NM; 069° Kinston   | 14,999 AGL                    | 2 NM radius. SR-SS daily,<br>occasional night use.   |
|  | SOUTH CAROLINA  |                               |  |
| (c) Rarnwell Ronl Arnt                                     | 15 NM; 343° Allendale   | 12,500                        | Daily SR-SS.   |
|  | 38.25 NM; 067° Savannah   | 10,000                        | 1.0 NM radius. Sat, Sun and holidays SR–SS.  |
|  | 16.5 NM; 223° Fort Mill   | 13,500 AGL                    | 1 NM radius. Daily 0800-SS.  |
|  | 14 NM; 343° Electric City   | 12,000                        | Daily SR-SS.   |
| COMMINIA, FUIL JACKSUM                                     | 10 NM; 020° Columbia  | 10,000                        | 1 NM radius. Weekends, occasional weekdays.  |

| LOCATION   | DISTANCE AND RADIAL FROM<br>NEAREST VOR/VORTAC                       | MAXIMUM<br>ALTITUDE                           | REMARKS   |
|--|--|---|---|
| (c) Green Sea Arpt   |  | 15,000  | 3 NM radius. Weekends and occasional weekdays SR-SS.  |
| (c) Loris, Twin City Arpt(c) North AF Aux Arpt                                       |  | 12,000<br>2,000                               | Weekends, holidays 0800–SS. ½ NM radius. Mon–Fri 0800–2200. Military personnel and heavy equipment. |
| St George Arpt<br>Timmonsville, Huggins Arpt<br>(c) Walterboro, Lowcountry Rgnl Arpt | 17 NM; 192° Vance  | 17,900<br>12,500<br>12,500 AGL                | SR-1 hr after SS.<br>Daily SR-SS.<br>Weekends.  |
|  | TENNESSEE  |   |   |
| Campbell Co  | 28.9 NM; 336° Volunteer<br>13 NM; 087° Choo Choo<br>Over Clarksville | 13,500<br>10,000<br>14,000 AGL                | 2 NM radius. 0800-one hr byd SS.<br>Continuous.<br>4 NM radius. Daily SR-SS,<br>occasional ngts.    |
| Crossville Meml-Whitson Fld  | 11.5 NM; 335° Hitch Mountain   | 14,500  | 1 NM radius. Daily SR–1 hr after<br>SS. occasional nights.  |
| (c) Dunlap   | 30 NM; 335° Choo Choo  | 9,000<br>12,500<br>12,500<br>13,500<br>13,500 | 5 NM radius. SR-SS Daily. Daily. Weekends. 5 NM radius. Daily SR-SS. 3 NM radius. Weekends SR-SS.   |
| (c) Somerville, Wings  | 26 NM; 210° McKellar   | 14,000 AGL                                    | 2 NM radius. Weekends 0700–SS. Occasional ngt jumps.  |
| Tullahoma Rgnl Arpt/WM Northern Fld  | 14.1 NM; 139° Shelbyville  | 15,000  | 5 NM radius. SR–SS primarily weekends with occasional nights.                                       |
| Whifferdill  | 25 NM; 303° Nashville  | 11,500  | 2 NM radius. Weekends SR-SS.  |
|  | PUERTO RICO  |   |   |
| (c) Arecibo, Antonio/Nery/Juarbe Pol   | 25 NM; 105° Borinquen  | 12,500  | 0600–1800 weekends & holidays.  |
| Arpt(c) Humacao Arpt   | 20.9 NM; 159° San Juan   | 15,000  | 2.5 NM radius. Weekends SR-SS, occasionally holiday SR-SS.  |
|  | VIRGIN ISLANDS   |   |   |
| St. Croix, Ordinance Drop Zone   |  | 2,000   | 0700–1400 Mon–Fri. 5 NM radius from 17°49'N 064°52'W.   |
| St. Thomas, Cyril E. King No. 1<br>St. Thomas, Cyril E. King No. 2                   |  | 15,000<br>15,000                              |   |

The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

## ATLANTA SECTIONAL 83rd Edition. 27 Aug 2009

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OBSTRUCTIONS
27 Aug 2009 No Major Changes.
22 Oct 2009 Add obst 1327'MSL (310'AGL)UC, 34°21'17"N, 87°41'54"W. Add obst 1114'MSL (346'AGL)UC, 34°37'03"N, 82°05'12"W. Add obst 1629'MSL (285'AGL)UC, 36°04'48"N, 84°31'00"W.
Add obst 879'MSL (296'AGL)UC, 32°54'16"N, 86°30'27"W.
Add obst 1183'MSL (227'AGL)UC, 35°04'04"N, 86°30'50"W.
Add obst 569'MSL (285'AGL)UC, 33°52'09"N, 81°07'44"W.
17 Dec 2009 Add obst 751'MSL (420'AGL)UĆ, 32°04'46"N, 86°24'32"W. Add obst 1010'MSL (600'AGL)UC, 32°49'46"N, 87°25'47"W.
Add obst 794'MSL (310'AGL)UC, 32°38'32"N, 86°45'19"W. Add obst 999'MSL (320'AGL)UC, 35°57'38"N, 87°45'23"W.
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#### **AIRPORTS**

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete POWELL arpt, 36°02'40"N, 084°00'16"W. Change CTAF 122.9 to 122.8 at ROBBINS arpt, 33°58'16"N, 86°22'49"W.

17 Dec 2009 Add CHARLOTTE/DOUGLAS INTL ATCT 133.35. 35°12'48"N. 80°56'56"W.

Add RP 34 to ASHVILLE RGNL arpt, 35°26'10"N, 82°32'30"W.

#### **NAVAIDS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **AIRSPACE**

27 Aug 2009 – 22 Oct 2009 No Major Changes.
17 Dec 2009 Revise ANNISTON, AL Class E: That airspace extending upward from the surface within 5.5 radius of Anniston Metropolitan Airport and that airspace extending upward from 700 feet above the surface within a 12.7-mile radius of Anniston Metropolitan Airport and within a 9.5-mile radius of Talladega Municipal Airport and within a 11.5-mile radius of St. Clair County Airport, excluding that airspace within Restricted Area R-2101 when the restricted area is active.

Add CLAYTON, GA Class E: That airspace extending upward from 700 feet above the surface within a 6.9-mile radius of the Heaven's Landing Airport.

Add SALUDA, SC Class E: That airspace extending upward from 700 feet above the surface within a 6.3-mile radius of the Saluda County Airport

#### SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### MILITARY TRAINING ROUTES

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### MISCELLANEOUS

27 Aug 2009 - 22 Oct 2009 No Major Changes.

17 Dec 2009 Change MEF 15 to 16 in quadrant 32°00′-32°30′N, 85°00′- 85°30′W.

## ATLANTA TERMINAL AREA CHART 80th Edition. 27 Aug 2009

### **OBSTRUCTIONS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

### **MILITARY TRAINING ROUTES**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### MISCELLANEOUS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

# CG-21 WORLD AFRONAUTICAL CHART 40th Edition, 24 Sep 2009

### **OBSTRUCTIONS**

22 Oct 2009 Add obst 1348'MSL (600'AGL), 34°15'06"N, 84°59'12"W. Change obst from 312'MSL to 1312'MSL,  $33^{\circ}35'33''N$ ,  $083^{\circ}58'31''W$ . **17 Dec 2009** No Major Changes.

**AIRPORTS**22 Oct 2009 Change elevation from 191' to 1911' at Blairsville arpt, 34°51'16"N, 083°59'50"W. Change runway orientation to 01/19 at Halifax-Northhampton Co Rgnl arpt, 36°19'47"N, 077°38'07"W. 17 Dec 2009 No Major Changes.

22 Oct 2009 - 17 Dec 2009 No Major Changes.

22 Oct 2009 - 17 Dec 2009 No Major Changes.

## SPECIAL USE AIRSPACE

22 Oct 2009 - 17 Dec 2009 No Major Changes.

## **MILITARY TRAINING ROUTES**

22 Oct 2009 - 17 Dec 2009 No Major Changes.

#### MISCELLANEOUS

22 Oct 2009 - 17 Dec 2009 No Major Changes.

## CHARLOTTE SECTIONAL 86th Edition, 30 Jul 2009

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OBSTRUCTIONS
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**27 Aug 2009** Add obst 727'MSL (310'AGL)UC, 35°00'34"N, 79°46'48"W. Add obst 537'MSL (310'AGL)UC, 34°02'15"N, 80°24'40"W. Add obst 268'MSL (263'AGL)UC, 35°47'45"N, 75°33'02"W.

Add obst 1335'MSL (575'AGL)UC, 35°12'56"N, 81°45'44"W. Add obst 404'MSL (300'AGL)UC, 34°11'08"N, 78°57'51"W.

22 Oct 2009 Add obst 768'MSL (499'AGL)UC, 34°59'54"N, 79°15'46"W.

Add obst 656'MSL (290'AGL)UC, 35°13'03'N, 80°00'55'W. Add obst 558'MSL (300'AGL)UC, 35°51'14"N, 78°53'39"W.

Add obst 326'MSL (310'AGL)UC, 34°51'44"N, 76°46'14"W. Add obst 844'MSL (390'AGL)UC, 35°07'18"N, 80°20'10"W. Add obst 365'MSL (300'AGL)UC, 34°10'08"N, 79°07'27"W.

Add obst 421'MSL (310'AGL)UC, 33°55'29"N, 79°54'56"N. Add obst 348'MSL (275'AGL)UC, 33°44'25"N, 79°56'04"W. Add obst 434'MSL (310'AGL)UC, 33°54'35"N, 80°01'52"W.

Add obst 1032'MSL (390'AGL)UC, 34°55'48"N, 80°38'59"W.

17 Dec 2009 No Major Changes.

#### **AIRPORTS**

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete RP\* at JAARS-TOWNSEND arpt, 34°51'49"N, 80°44'52"W.

Delete JORDAN arpt, 33°32'23"N, 79°31'55"W.

17 Dec 2009 Add CHARLOTTE/DOUGLAS INTL ATCT frequency 133.35 (RWY 18R/36/L), 35°12'48"N, 80°56′56″W.

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete JOHNS ISLAND NDB. 32°42'05"N. 80°00'20"W.

17 Dec 2009 No Major Changes.

27 Aug 2009 Revise Albemarle, NC Class D; That airspace extending upward from the surface to and including 3,100 feet MSL within a 5.8-mile radius of Stanly County Airport and within 1.5 miles each side of the 043 degree bearing from Stanly County Airport to 7.8 miles Northeast. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.

22 Oct 2009 No Major Changes.
17 Dec 2009 Change SHAW AFB CLASS C frequency from 385.6 to 285.4.

Add Hertford, NC Class E. That airspace extending upward from 700 feet above the surface of the Earth within a 6.5-mile radius of Harvey Point Defense Testing Activity and within 2 miles each side of the 199° bearing from the airport extending from the 6.5-mile radius to 9 miles southwest of the airport, and within a 6.5-mile radius of Harvey Point Defense Testing Activity and within 2 miles each side of the 018° bearing from the airport extending from the 6.5-mile radius to 9 miles northeast of the airport. Add Saluda, SC Class E. That airspace extending upward from 700 feet above the surface within a 6.3-mile radius of the Saluda County Airport.

#### SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **MILITARY TRAINING ROUTES**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **MISCELLANEOUS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

## CHARLOTTE TERMINAL AREA CHART 41st Edition. 30 Jul 2009

### **OBSTRUCTIONS**

**27** Aug 2009 Add obst 1335'MSL (575'AGL)UC, 35°12'56"N, 81°45'44"W. **22** Oct 2009 Add obst 844'MSL (390'AGL)UC, 35°07'18"N, 80°20'10"W.

17 Dec 2009 No Major Changes.

#### **AIRPORTS**

27 Aug 2009 Revise Albemarle, NC Class D; That airspace extending upward from the surface to and including 3,100 feet MSL within a 5.8-mile radius of Stanly County Airport and within 1.5 miles each side of the 043 degree bearing from Stanly County Airport to 7.8 miles Northeast. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory. Revise Albemarle, NC Class E; That airspace extending upward from 700 feet above the surface within an 8-mile radius of Stanly County Airport.

Revise Albemarle, NC Class E; That airspace extending wuward from 700' above the surface within an 8-mile radius of Stanly County Airport.

8-mile radius of Stanly County Airport. **22 Oct 2009** Delete RP\* at JAARS-TOWNSEND arpt, 34°51'49"N, 80°44'52"W.

17 Dec 2009 Add CHARLOTTE/DOUGLAS INTL ATCT frequency 133.35 (RWY 18R/36/L), 35°12'48"N, 80°56'56"W.

## NAVAIDS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **AIRSPACE**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **MILITARY TRAINING ROUTES**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **MISCELLANEOUS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

## CINCINNATI SECTIONAL 83rd Edition, 17 Dec 2009

#### OBSTRUCTIONS

17 Dec 2009 No Major Changes.

#### **AIRPORTS**

17 Dec 2009 No Major Changes.

#### **NAVAIDS**

17 Dec 2009 No Major Changes.

#### **AIRSPACE**

17 Dec 2009 No Major Changes.

#### SPECIAL USE AIRSPACE

17 Dec 2009 No Major Changes.

#### **MILITARY TRAINING ROUTES**

17 Dec 2009 No Major Changes.

#### **MISCELLANEOUS**

## CINCINNATI TERMINAL AREA CHART 22nd Edition. 17 Dec 2009

OBSTRUCTIONS

17 Dec 2009 No Major Changes.

**AIRPORTS** 

17 Dec 2009 No Major Changes.

**NAVAIDS** 

17 Dec 2009 No Major Changes.

**AIRSPACE** 

17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

17 Dec 2009 No Major Changes.

**MILITARY TRAINING ROUTES** 

17 Dec 2009 No Major Changes.

**MISCELLANEOUS** 

17 Dec 2009 No Major Changes.

## IFR GULF OF MEXICO CENTRAL 1st Edition, 17 Dec 2009

**OBSTRUCTIONS** 

17 Dec 2009 No Major Changes.

**AIRPORTS** 

17 Dec 2009 No Major Changes.

**NAVAIDS** 

17 Dec 2009 No Major Changes.

**AIRSPACE** 

17 Dec 2009 No Major Changes.

**SPECIAL USE AIRSPACE** 

17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES 17 Dec 2009 No Major Changes.

**MISCELLANEOUS** 

17 Dec 2009 No Major Changes.

## IFR GULF OF MEXICO WEST 1st Edition, 17 Dec 2009

**OBSTRUCTIONS** 

17 Dec 2009 No Major Changes.

**AIRPORTS** 

17 Dec 2009 No Major Changes.

**NAVAIDS** 

17 Dec 2009 No Major Changes.

**AIRSPACE** 

17 Dec 2009 No Major Changes.

**SPECIAL USE AIRSPACE** 17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

17 Dec 2009 No Major Changes.

**MISCELLANEOUS** 

## JACKSONVILLE SECTIONAL 84th Edition, 27 Aug 2009

#### OBSTRUCTIONS

27 Aug 2009 No Major Changes.

22 Oct 2009 Add obst 632'MSL (622'AGL)UC, 27°55'55"N, 82°24'04"W.

Add obst 487'MSL (473'AGL)UC, 31°46'58"N, 81°26'27"W.

17 Dec 2009 No Major Changes.

#### AIRPORTS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### MILITARY TRAINING ROUTES

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### MISCELLANEOUS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

## MEMPHIS SECTIONAL 83rd Edition. 24 Sep 2009

## OBSTRUCTIONS

22 Oct 2009 Add obst 505'MSL (328'AGL), 34°21'56"N, 90°38'14"W.

Add obst 798'MSL (420'AGL)UC, 32°05'24"N, 90°39'59"W. Add obst 979'MSL (499'AGL)UC, 34°13'53"N, 93°16'47"W.

Add obst 495'MSL (330'AGL)UC, 33°39'16"N, 92°40'34"W. Add obst 945'MSL (645'AGL)UC, 33°38'59"N, 93°48'43"W. **17 Dec 2009** Add obst 779'MSL (311'AGL)UC, 32°52'06"N, 89°10'13"W.

Add obst 558'MSL (311'AGL)UC, 32°45'06"N, 90°08'26"W.

Add obst 1465'MSL (304'AGL)UC, 36°05'39"N, 93°07'56"W.

Add obst 711'MSL (305'AGL)UC, 35°12'53"N, 92°27'30"W. Add obst 820'MSL (311'AGL)UC, 32°58'38"N, 89°22'06"W. Add obst 852'MSL (499'AGL)UC, 32°08'05"N, 90°03'41"W.

Add obst 826'MSL (256'AGL)UC, 32°54'53"N, 89°15'18"W.

Add obst 788'MSL (260'AGL)UC, 35°28'15"N, 88°31'00"W. Change obst from 693'MSL (331'AGL)to 753'MSL (391'AGL), 32°28'00"N, 94°23'59"W.

Add obst 1624'MSL (339'AGL)UC, 36°02'15"N, 93°55'05"W.

Add obst 724'MSL (475'AGL)UC, 35°39'50"N, 89°56'44"W.

22 Oct 2009 Add RP 35 to TUNICA MUNI arpt, 34°41'06"N, 90°20'52"W.

17 Dec 2009 FULTON ITAWAMBA CO arpt abandoned, 34°21'07"N, 88°22'38"W.

Delete abandoned arpt sym, 33°54′17″N, 94°50′43″W.

Delete abandoned arpt sym, 33°07'46"N, 94°58'32"W.

### NAVAIDS

22 Oct 2009 Shutdown PINHOOK NDB, 35°15′14″N, 88°12′15″W. Change bearing 294° to 293° from HAMILTON VORTAC(HAB) 34°11'42"N, 88°00'45"W.

17 Dec 2009 Shutdown CLARKSDALE NDB, 34°17'35"N, 90°30'56"W.

#### AIRSPACE

22 Oct - 17 Dec 2009 No Major Changes.

#### SPECIAL USE AIRSPACE

22 Oct - 17 Dec 2009 No Major Changes.

#### MILITARY TRAINING ROUTES

22 Oct - 17 Dec 2009 No Major Changes.

#### MISCELLANEOUS

27 Oct 2009 Change MEF 10 to 11 in quadrant 33°30′00″-34°00′00″N, 93°30′00″-94°00′00″W.

## MEMPHIS TERMINAL AREA CHART 41st Edition. 24 Sep 2009

**OBSTRUCTIONS** 

22 Oct 2009 No Major Changes.

17 Dec 2009 Add obst 724'MSL (475'AGL)UC, 35°39'50"N, 89°56'44"W.

AIRPORTS

22 Oct 2009 Add RP 35 to TUNICA MUNI arpt, 34°41′06″N, 90°20′52″W.

17 Dec 2009 No Major Changes.

NAVAID:

22 Oct 2009 - 17 Dec 2009 No Major Changes.

AIRSPACE

22 Oct 2009 - 17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

22 Oct 2009 - 17 Dec 2009 No Major Changes.

**MILITARY TRAINING ROUTES** 

22 Oct 2009 - 17 Dec 2009 No Major Changes.

MISCELLANEOUS

22 Oct 2009 - 17 Dec 2009 No Major Changes.

## MIAMI SECTIONAL 85th Edition. 27 Aug 2009

**OBSTRUCTIONS** 

27 Aug 2009 No Major Changes.

22 Oct 2009 Add obst 306'MSL (250'AGL)UC, 27°39'56"N, 81°22'11"W.

Add obst 632'MSL (622'AGL)UC, 27°55'55"N, 82°24'04"W.

17 Dec 2009 No Major Changes.

**AIRPORTS** 

27 Aug 2009 No Major Changes.

22 Oct 2009 Delete COXS HAMMOCK arpt, 27°04'18"N, 80°31'12"W.

**17 Dec 2009** Change GWINN ATCT freq from 314.6 to 279.25, 26°54'30"N, 80°19'44"W. Delete STRAZZULLA GROVES arpt, 27°29'51"N, 80°31'47"W.

NAVAIDS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

AIRSPACE

27 Aug 2009 - 22 Oct 2009 No Major Changes.

17 Dec 2009 Revise SARASOTA, FL Class E airspace. That airspace extending upward from the surface within 2.4 miles each side of the 140° bearing from the airport, extending from a 5-mile radius of Sarasota/Bradenton International Airport to 6.2 miles southeast of the airport and that airspace 2.4 miles each side of the 293° bearing from the airport, extending from a 5-mile radius of Sarasota/Bradenton International Airport to 7.9 miles northwest of the airport. This Class E airspace area is effective during the specific days and times established in advance by a Notice to Airmen. The effective days and times will thereafter be continuously published in the Airport/Facility Directory. Revise SARASOTA, FL Class E airspace. That airspace extending upward from 700 feet above the surface within a 7.9-mile radius of the Sarasota/Bradenton International Airport.

SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

**MILITARY TRAINING ROUTES** 

27 Aug 2009 - 17 Dec 2009 No Major Changes.

**MISCELLANEOUS** 

27 Aug 2009 - 22 Oct 2009 No Major Changes.

17 Dec 2009 Change RP \* to RP 10R at ST LUCIE COUNTY INTERNATIONAL arpt, 27°29′50″N,

80°22′21″W.

## MIAMI TERMINAL AREA CHART 74th Edition. 27 Aug 2009

### **OBSTRUCTIONS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **AIRPORTS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### NAVAIDS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### AIRSPAC

27 Aug 2009 - 17 Dec 2009 No Major Changes.

## **SPECIAL USE AIRSPACE**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

### **MILITARY TRAINING ROUTES**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **MISCELLANEOUS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

## NEW ORLEANS SECTIONAL 85th Edition, 19 Nov 2009

#### **OBSTRUCTIONS**

17 Dec 2009 Add obst 250' MSL (231' AGL), 30°26'08"N, 90°38'21"W. Add obst 852' MSL (499' AGL), 32°08'05"N, 90°03'41"W. Change obst from 544' MSL (310' AGL) to 644' MSL (410' AGL), 31°52'32"N, 90°10'15"W. Add obst 651' MSL (470' AGL), 31°44'31"N, 88°32'22"W.

#### AIRPORT

17 Dec 2009 Delete WOLF RIVER ARPT, 30°54′52"N, 89°26′40"W.

### **NAVAIDS**

17 Dec 2009 No Major Changes.

#### **AIRSPACE**

17 Dec 2009 No Major Changes.

#### **SPECIAL USE AIRSPACE**

17 Dec 2009 No Major Changes.

### **MILITARY TRAINING ROUTES**

17 Dec 2009 No Major Changes.

#### **MISCELLANEOUS**

# ORLANDO TERMINAL AREA CHART 39th Edition. 27 Aug 2009

**OBSTRUCTIONS** 

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

**MILITARY TRAINING ROUTES** 

27 Aug 2009 - 17 Dec 2009 No Major Changes.

MISCELLANEOUS

**27 Aug 2009 - 17 Dec 2009** No Major Changes.

# PUFRTO RICO-VIRGIN ISLAND TERMINAL AREA CHART 36th Edition, 22 Oct 2009

**OBSTRUCTIONS** 

22 Oct 2009 - 17 Dec 2009 No Major Changes.

22 Oct 2009 - 17 Dec 2009 No Major Changes.

22 Oct 2009 - 17 Dec 2009 No Major Changes.

22 Oct 2009 - 17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

22 Oct 2009 - 17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

22 Oct 2009 - 17 Dec 2009 No Major Changes.

**MISCELLANEOUS** 

22 Oct 2009 - 17 Dec 2009 No Major Changes.

# AERONAUTICAL CHART BULLETIN

# ST. LOUIS SECTIONAL 81st Edition, 17 Dec 2009

**OBSTRUCTIONS** 

17 Dec 2009 No Major Changes.

17 Dec 2009 No Major Changes.

**NAVAIDS** 

17 Dec 2009 No Major Changes.

AIRSPACE

17 Dec 2009 No Major Changes.

SPECIAL USE AIRSPACE

17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

17 Dec 2009 No Major Changes.

MISCELLANEOUS

17 Dec 2009 No Major Changes.

# TAMPA TERMINAL AREA CHART 39th Edition, 27 Aug 2009

OBSTRUCTIONS

27 Aug 2009 No Major Changes. 22 Oct 2009 Add obst 632'MSL (622'AGL)UC, 27°55'55"N, 82°24'04"W.

17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

27 Aug 2009 - 17 Dec 2009 No Major Changes.

AIRSPACE

27 Aug 2009 - 22 Oct 2009 No Major Changes.

17 Dec 2009 Revise SARASOTA, FL Class E: That airspace extending upward from the surface within 2.4 miles each side of the 140° bearing from the airport, extending from a 5-mile radius of Sarasota/Bradenton International Airport to 6.2 miles southeast of the airport and that airspace 2.4 miles each side of the 293° bearing from the airport, extending from a 5-mile radius of Sarasota/Bradenton International Airport to 7.9 miles northwest of the airport. This Class E airspace area is effective during the specific days and times established in advance by a Notice to Airmen. The effective days and times will thereafter be continuously published in the Airport/Facility Directory. Revise SARÁSOTA, FL Class E airspace. That airspace extending upward from 700 feet above the surface within a 7.9-mile radius of the Sarasota/Bradenton International Airport.

SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

MILITARY TRAINING ROUTES

27 Aug 2009 - 17 Dec 2009 No Major Changes.

MISCELLANEOUS

27 Aug 2009 - 17 Dec 2009 No Major Changes.

## WASHINGTON SECTIONAL 86th Edition, 30 Jul 2009

### **OBSTRUCTIONS**

27 Aug 2009 No Major Changes.

**22 Oct 2009** Add obst 588'MSL (421' AGL) UC, 37°35'09"N, 77°15'47"W. Add obst 434'MSL (400' AGL) UC, 36°26'12"N, 76°43'25"W.

Add obst 3226'MSL (400' AGL) UC, 40°01'35"N, 78°48'07"W. Add obst 369'MSL (309' AGL) UC, 37°24'37"N, 76°32'51"W.

17 Dec 2009 Add obst 2857'MSL (262'AGL)UC, 39°45'14"N, 78°53'27"W.

**27 Aug 2009** No Major Changes. **22 Oct 2009** Delete BOLLING AFB heliport, 38°50′34″N, 77°00′58″W.

17 Dec 2009 No Major Changes.

**27 Aug 2009** No Major Changes. **22 Oct 2009** Delete LOUISA NDB, 38°01′14″N, 77°51′33″W.

17 Dec 2009 No Major Changes.

27 Aug 2009 – 22 Oct 2009 No Major Changes.
17 Dec 2009 Add HERTFORD, NC Class E: That airspace extending upward from 700 feet above the surface of the earth within a 6.5-mile radius of Harvey Point Defense Testing Activity and within 2 miles each side of the 199° bearing from the airport extending from the 6.5-mile radius to 9 miles southwest of the airport, and within a 6.5-mile radius of Harvey Point Defense Testing Activity and within 2 miles each side of the 018° bearing from the airport extending from the 6.5-mile radius to 9 miles northeast of the airport.

#### SPECIAL USE AIRSPACE

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### MILITARY TRAINING ROUTES

27 Aug 2009 - 17 Dec 2009 No Major Changes.

#### **MISCELLANEOUS**

27 Aug 2009 - 17 Dec 2009 No Major Changes.

### SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private—use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

|  | ST |  |
|--|----|--|
|  |    |  |

|          | UNITED STATES  |                   |
|----------|--|-------------------|
| FACILITY |  | CHART & PANEL     |
|          | fort, IL (LL4Ø)  | L-28H             |
| Chi      | icago App/Dep Con 133.1 285.6  |                   |
| Glasgo   | ow Industrial, MT (Ø7MT)   | H-1E, 2F, L-13D   |
| Sal      | It Lake Center App/Dep Con 126.85 305.2                              |                   |
| USAF A   | Academy Bullseye Aux Airstrip, CO (CO9Ø)                             | L-10F             |
| AS       | OS 118.325   |                   |
| West I   | (entucky Airpark, KY (5KY3)  | L-16I             |
| Me       | mphis Center App/Dep Con 133.65 292.15                               |                   |
| Willian  | n P Gwinn, FL (Ø6FA)   | H-8I, L-23C       |
| Gw       | inn Tower 120.4 279.25 (Mon-Fri 1300-2100Z‡)                         |                   |
| Gn       | d Con 121.65 279.25  |                   |
|          | CANADA   |                   |
| FACILITY |  | CHART & PANEL     |
| Abbots   | sford, BC (CYXX)   | H-1B, L-12F       |
|          | S 119.8 (1500–0700Z‡)  | ,                 |
|          | toria Trml App/Dep Con 132.7 (Avbl on ground) 290.8                  |                   |
|          | wer 119.4 (Inner) 121.0 (Outer) 295.0 (1500–0700Z‡) Gnd Con 121.8    |                   |
|          | 119.4 295.0 (0700–1500Z‡) (Shape irregular to 4500')                 |                   |
|          | Magny, QC (CYEY)   | H-11B             |
|          | Intreal Center App/Dep Con 125.9                                     | 11-110            |
|          | an Muni, ON (CYIB)   | L-14I             |
|          | 122.3 (5 NM to 4500' No ground station)                              | 5-141             |
|          | -Orillia (Lake Simcoe Rgnl), ON (CYLS)                               | H-11B, L-31D      |
|          | OS 122.55 (Pvt)  | 11 110, 2 010     |
|          | ronto Center App/Dep Con 124.025                                     |                   |
|          | ver, ON (CPF2)   | L-31C             |
|          | ronto Center App/Dep Con 132.65                                      | 1-310             |
|          | rst, NB (CZBF)   | L-32J             |
|          | ncton Center App/Dep Con 134.25                                      | L=321             |
|          | ary Bay, BC (CZBB)   | H-1B, L-1E        |
|          | S 125.5 (1500–0700Z‡)  | 11-15, 1-11       |
|          | ncouver App/Dep Con 132.3 363.8                                      |                   |
|          | wer 118.1 (Inner) 127.6 (Outer) (1500–0700Z‡) Gnd Con 124.3          |                   |
|          | 118.1 (0700–1500Z‡ to 2000'. Vancouver Trml 125.2 above 2000'. Shape |                   |
|          | egular to 2500'.)  |                   |
|          | · ,  | L-31D             |
|          | ronto Trml App/Dep Con 119.3 253.1                                   | L-31D             |
|          | on Muni, MB (CYBR)   | H-2H              |
|          | nnipeg Center App/Dep Con 132.25 285.4                               | п-2п              |
|          | 122.1 (5 NM to 4000')  |                   |
|          | ord, ON (CYFD)   | L-31D             |
|          | ronto Trml App/Dep Con 128.27  | L-31D             |
|          | ville-Thousand Islands Rgnl Tackaberry, ON (CNL3)                    | L-32G             |
|          | intreal Center App/Dep Con 134.675                                   | L-32d             |
|          | int, QC (CZBM)   | L-32G             |
|          | intreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400')          | L=32G             |
|          | gton Airpark, ON (CZBA)  | L-31D             |
|          |  | L-31D             |
|          | ronto Center App/Dep Con 119.3 253.1                                 | H-1C              |
|          | gar, BC (CYCG)   | H-10              |
|          | ncouver Center App/Dep Con 134.2 227.3                               |                   |
|          | 122.1 (5 NM to 6500')  | 11 400 445 1 5:5  |
|          | Ilia/James T. Fld Muni, ON (CYCE)                                    | H-10G, 11B, L-31D |
|          | ronto Center App/Dep Con 135.30                                      |                   |
|          | ttetown, PE (CYYG)   | H-11E, L-32J      |
|          | ncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200')       |                   |
| Chathe   | am-Kent, ON (CNZ3)   | H-10G, L-30G      |
|          | eveland Center App/Dep Con 132.25                                    |                   |

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| COILITY NAME Collingwood, ON (CNY3)   | CHART & PANEL<br>H-11B, L-31D |
|---|-------------------------------|
| Toronto Center App/Dep Con 124.02   | п-11В, L-31D                  |
| Cornwall Rgnl, ON (CYCC)  | L-32G                         |
| Boston Center App/Dep Con 135.25 377.1  | L 020                         |
| Cranbrook/Canadian Rockies Intl, BC (CYXC)  | H-1C                          |
| Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100')   |                               |
| Debert, NS (CCQ3)   | H-11E, L-32J                  |
| Halifax Trml App/Dep Con 119.2  |                               |
| Dighy, NS (CYID)  | L-32J                         |
| Moncton Center App/Dep Con 123.9  |                               |
| Downsview, DN (CYZD)  | H-11B, L-31E                  |
| Toronto Center App Con 133.4<br>Toronto Center Dep Con 133.4  |                               |
| MF 126.2 (1300–2300Z‡, 3 NM to 1700′)   |                               |
| Drummondville, QC (CSC3)  | L-32H                         |
| Montreal Center App/Dep Con 132.35  |                               |
| Earlton (Timiskaming Rgnl), ON (CYXR)   | H-11B                         |
| MF 122.0 (5 NM to 3800')  |                               |
| AWOS 128.6  |                               |
| Elliot Lake Muni, ON (CYEL)   | L-31C                         |
| Toronto Center App/Dep Con 135.4  |                               |
| Fort Frances Muni, ON (CYAG)  | L-14H                         |
| Minneapolis Center App/Dep Con 120.9  |                               |
| Fredericton Intl, NB (CYFC)   | H-11E, L-32I                  |
| ATIS 127.55   |                               |
| Moncton Center App/Dep Con 124.3 135.5 270.8<br>Tower 119.0 (1200–2000Z, DT 1100–1900Z) Gnd Con 121.7 (Ltd hrs) |                               |
| MF 119.0 (2000–1200Z, DT 1900–1100Z 5 NM to 3500')  |                               |
| Goderich, ON (CYGD)   | H-11B, L-31D                  |
| Toronto Center App/Dep 135.3 266.3  | ,                             |
| Greenwood, NS (CYZX)  | H-11E, L-32J                  |
| ATIS 128.85 244.3 (1100-0000Z‡)   |                               |
| App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3   |                               |
| Gnd Con 133.75 289.4 Clnc Del 128.05 283.9  |                               |
| Grimsby Air Park, ON (CNZ8)   | L-31E                         |
| Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475  |                               |
| Halifax/Shearwater, NS (CYAW)   | H-11E, L-32J                  |
| ATIS 129.175 (Ltd hrs)  |                               |
| App/Dep Con 119.2 Tower 119.0 126.2 340.2 360.2 (Ltd hrs)<br>Gnd Con 121.7 250.1                                |                               |
| Halifax/Stanfield Intl, NS (CYHZ)   | H-11E, L-32J                  |
| ATIS 121.0  | 11–111, 1–525                 |
| Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 225.2 363.8   |                               |
| Tower 118.4 236.6 Gnd Con 121.9 275.8 Clnc Del 123.95   |                               |
| Apron Advisory 122.125  |                               |
| Hamilton, ON (CYHM)   | H-10H, 11B, L-11B             |
| ATIS 128.1  |                               |
| Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0  |                               |
| Gnd Con 121.6   |                               |
| Kingston, ON (CYGK)   | H-11C, L-31E, 32F             |
| Montreal Center App/Dep Con 135.05 398.4 (0400–1115Z‡)  |                               |
| MF 122.5 (1115–0400Z‡ 5 NM to 3300′)  | II 44D I 24D                  |
| Kitchener/Waterloo, ON (CYKF)   | H-11B, L-31D                  |
| ATIS 125.1 (1200-0400Z‡) Toronto Trml App/Dep Con 128.275   |                               |
| Waterloo Tower 126.0 118.55 (1200–0400Z‡) Gnd Con 121.8   |                               |
| MF 126.0 (0400–1200Z‡ 5 NM to 4000')  |                               |
| .achute, QC (CSE4)  | L-32G                         |
| Montreal Center App Con 124.65 132.85 268.3   |                               |
| Montreal Center Dep Con 132.85 268.3  |                               |
| a Tuque, QC (CYLQ)  | H-11C                         |
| Montreal Center App/Dep Con 134.5   |                               |
| Langley, BC (CYNJ)  | L-1E                          |
| ATIS 124.5 (1630-0230Z, DT 1530-0330Z)  |                               |
| Victoria Trml 132.7 290.8 Tower 119.0 (1630–0230Z, DT 1530–0330Z)   |                               |
| Gnd Con 121.9 MF 119.0 (0230–1630Z, DT 0330–1530Z 3 NM to 1900')  |                               |

| CILITY NAME  Leamington, ON (CLM2)  | CHART & PANE<br>L-30 |
|---|----------------------|
| Cleveland Center App/Dep Con 132.45   |                      |
| Lethbridge, AB (CYQL)   | H-1I                 |
| ATIS 124.4 (1300-0545Z‡)  |                      |
| Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000')             |                      |
| Lindsay, ON (CNF4)  | L-31E, L-32          |
| Toronto Center App/Dep 134.25   |                      |
| Liverpool/South Shore Rgnl, NS (CYAU)   | L-32                 |
| Moncton Center App/Dep Con 123.9  | U 400 44E            |
| London, ON (CYXU)<br>ATIS 127.8 (1120-0345Z‡)                                 | H-10G, 11B           |
| Toronto Center App/Dep 135.3 135.625  | L-30G, 31I           |
| Tower 119.4 125.65 (1120–0345Z‡) Gnd Con 121.9                                |                      |
| MF 119.4 (0345–1120Z‡ 5 NM to 3000′)  |                      |
| Manitowaning/Manitoulin East Muni, ON (CYEM)                                  | L-31                 |
| Toronto Center App/Dep 135.4 260.9  | 2 01                 |
| Maniwaki, QC (CYMW)   | L-32                 |
| Montreal Center App/Dep Con 126.57  |                      |
| Mascouche, QC (CSK3)  | L-32                 |
| MF 122.35 (5 NM to 2500'. No gnd station. Excluding the portion S of the      |                      |
| N shore of Riviere des Milles-lles and 1 NM around Lac Agile Mascouche arpt.) |                      |
| Medicine Hat, AB (CYXH)   | H-1                  |
| AWOS 124.875 (0345-1245Z‡)  |                      |
| MF 122.2 (1245-0345Z‡ 5 NM to 5400')  |                      |
| Midland/Huronia, ON (CYEE)  | L-31                 |
| Toronto Center App/Dep 124.025  |                      |
| Miramichi, NB (CYCH)  | H-11E, L-32          |
| Moncton Center App/Dep Con 123.7  |                      |
| Moncton/Greater Moncton Intl, NB (CYQM)                                       | H-11E, L-32          |
| ATIS 128.65   |                      |
| App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8                           |                      |
| Apron Advisory 122.075  | 1 00                 |
| Mont-Laurier, QC (CSD4)   | L-320                |
| Montreal Center App/Dep Con 126.57  | 11 440 401/ 1 20/    |
| Montreal Intl (Mirabel), QC (CYMX)  ATIS 125.7                                | H-11C, 12K, L-32     |
| Montreal Center App Con 124.65 132.85 268.3                                   |                      |
| Montreal Dep Con 132.85   |                      |
| MF 119.1 (7 NM shape irregular to 2000') VFR Advisory 134.15                  |                      |
| Montreal/Pierre Elliott Trudeau Intl, QC (CYUL)                               | H-11C, 12K, L-32     |
| ATIS 133.7  | 110, 12, 2 02        |
| Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3                         |                      |
| Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075            |                      |
| Montreal Trml Dep Con 118.9 (SE-S-SW) 124.65 268.3 (W-NW-NE)                  |                      |
| VFR Advisory 134.15   |                      |
| Montreal/St-Hubert, QC (CYHU)   | H-11C, L-32          |
| ATIS 124.9 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z) AWOS 124.9               |                      |
| Montreal Center App/Dep Con 125.15 268.3                                      |                      |
| St. Hubert Tower 118.4 (Apr-Oct 1045-0500Z‡, Nov-Mar 1045-0400Z)              |                      |
| Gnd Con 126.4 MF 118.4 (Apr-Oct 0500-1045Z‡, Nov-Mar                          |                      |
| 0400–1045Z 5 NM shape irregular to 2500') VFR Advisory 134.15                 |                      |
| Muskoka, ON (CYQA)  | H-11B, L-31          |
| AWOS 124.575  |                      |
| MF 122.3 (5 NM to 3900')  |                      |
| Nanaimo, BC (CYCD)  | H-1B, L-1            |
| Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330-0530Z‡ (5 NM to 2500') |                      |
| North Bay, ON (CYYB)  | H-11B, L31           |
| ATIS 124.9 (1130-0300Z‡)  |                      |
| Toronto Center App/Dep 121.225 127.25   |                      |
| MF 118.3 (1130–0330Z‡ 7 NM to 5000′)  |                      |
| Oshawa, ON (CYOO)   | L-31                 |
| ATIS 125.675 (1130–0330Z‡)  |                      |
| Toronto Trml App Con 133.4  |                      |
| Tower 120.1 (1130–0330Z‡) Gnd Con 118.4                                       |                      |
| Toronto Trml Dep Con 133.4 MF 120.1 (0330-1130Z‡ 5 NM to 3000')               |                      |

| CILITY NAME   | CHART & PANEI    |
|---|------------------|
| Ottawa/Carp, ON (CYRP)  | L-31E, 32F       |
| ATIS 121.15   |                  |
| Ottawa Trml App/Dep Con 128.175 252.5   |                  |
| Ottawa/Gatineau, QC (CYND)  | H-11C, L-320     |
| Ottawa Trml App/Dep Con 127.7 128.175 252.5   |                  |
| MF 122.3 (5 NM shape irregular to 2500')  |                  |
| VFR Advisory Ottawa Trml 127.7  |                  |
| Ottawa/MacDonald-Cartier Intl, ON (CYOW)  | L-110            |
| ATIS 121.15   |                  |
| Ottawa App Con 135.15 Tower 118.8 120.1 341.3   |                  |
| Gnd Con 121.9 Clnc Del 119.4  |                  |
| Ottawa Dep Con 128.175  |                  |
| Owen Sound/Billy Bishop Rgnl, ON (CYOS)   | L-31[            |
| Toronto Center App/Dep 132.575 290.6  |                  |
| Pelee Island, ON (CYPT)   | L-301            |
| Cleveland Center App/Dep Con 126.35 360.0   |                  |
| Pembroke, ON (CYTA)   | H-11C, L-31E, 32 |
| Montreal Center App/Dep Con 135.2   |                  |
| Petawawa Advisory 126.4 250.1 (Mon-Fri 1300-2130Z‡, OT PPR)   |                  |
| Penticton, BC (CYYF)  | H-1I             |
| Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100')                                   |                  |
| Peterborough, ON (CYPQ)   | H-11B, L-31E, 32 |
| AWOS 126.925  |                  |
| Toronto Center App/Dep 134.25   |                  |
| Pincher Creek, AB (CZPC)  | H-1              |
| Edmonton Center App/Dep Con 132.75 265.2  |                  |
| Pitt Meadows, BC (CYPK)   | L-1              |
| ATIS 125.0 (1500-0700Z‡)  |                  |
| Vancouver Center App Con 128.6 352.7 (Outer)  |                  |
| Pitt Tower 126.3 (1500-0700Z‡) Gnd Con 123.8  |                  |
| Vancouver Center Dep Con 132.3 363.8 (South)  |                  |
| MF 126.3 (0700-1500Z‡) (3NM to 2500')   |                  |
| Quebec/Jean Lesage Intl, QC (CYQB)  | H-11D, L-32H     |
| ATIS 134.6  |                  |
| Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8  |                  |
| (185.65 Quebec Twr VFR acft at or below 3000') Tower 118.65 236.6                                   |                  |
| Gnd Con 121.9 250.0   |                  |
| Riviere Du Loup, QC (CYRI)  | H-11I            |
| AWOS 122.025 (Pvt)  |                  |
| Montreal Center App/Dep Con 125.1 299.6   |                  |
| Rouyn Noranda, QC (CYUY)  | H-11             |
| Montreal Center App/Dep Con 125.9   |                  |
| MF 122.2 (5 NM to 4000')  |                  |
| Saint John, NB (CYSJ)   | H-11E, L-32      |
| Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400')                               |                  |
| Sarnia (Chris Hadfield), ON (CYZR)  | H-10G, 11B, L-30 |
| Toronto Center 134.375  | ,,               |
| Sault Ste Marie, ON (CYAM)  | H-2K, L-31       |
| ATIS 133.05 (1300–0100Z‡)   | ,                |
| Toronto Center App/Dep Con 132.65 344.5   |                  |
| Tower 118.8 (1300–0100Z‡) Gnd Con 121.7   |                  |
| MF 118.8 (0100–1300Z‡ 5 NM irregular shape to 3000′)  |                  |
| Sherbrooke, QC (CYAM)   | H-11D, L-32      |
| AWOS 126.25   | 11–110, 1–321    |
|   |                  |
| Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800')  South Penfrow Muni. ON (CNIP2) | L-31E, 32        |
| South Renfrew Muni, ON (CNP3)  Montreal Contact App (Pap 134 375)                                   | L-31E, 32        |
| Montreal Center App/Dep 124.275   | H-2I             |
| Southport, MB (CYPG)  ATIS 120 85 (Map Fri 1400 23007† except helidaya)                             | H-21             |
| ATIS 120.85 (Mon–Fri 1400–2300Z‡ except holidays)   |                  |
| Tower 126.2 384.2 (Mon-Fri 1400–2300Z‡ except holidays)   |                  |
| Gnd Con 121.7 275.8   |                  |

I

| CILITY NAME<br>Springwater Barrie Airpark, ON (CNA3)  | CHART & PANE<br>L-31 |
|---|----------------------|
| Toronto Center App/Dep Con 124.025  | 2 01                 |
| St. Catherines/Niagara District, ON (CYSN)  | H-10H, 11B, L-31     |
| ATIS 128.525 (1215-0200Z‡)  |                      |
| Toronto Trml App/Dep Con 133.4 253.1  |                      |
| MF 123.25 (1215-0200Z‡ 5 NM to 3300')   |                      |
| St. Frederic, QC (CSZ4)   | L-32                 |
| Montreal Center App/Dep Con 135.025 270.9   |                      |
| St. Georges, QC (CYSG)  | H-32H, L-11          |
| Montreal Center App/Dep Con 132.35  |                      |
| MF 122.15 (5 NM 3900' ASL)  |                      |
| St. Jean, QC (CYJN)   | L-32                 |
| Montreal Center App/Dep Con 125.15 268.3  |                      |
| Tower 118.2 (Apr-Oct 1230-0230Z‡ Nov-Mar 1300-0200Z‡)   |                      |
| Gnd Con 121.7   |                      |
| Sudbury, ON (CYSB)  | H-31B, 10G, L-31     |
| ATIS 127.4  |                      |
| Toronto Center App/Dep Con 135.5  |                      |
| MF 125.5 (7 NM to 4000')  |                      |
| Summerside, PE (CYSU)   | H-11E, L-3           |
| AWOS 122.55 (Pvt)   |                      |
| Moncton Center App/Dep Con 124.4 384.8  |                      |
| Thunder Bay, ON (CYQT)  | H-2J, L-1            |
| ATIS 128.8 (1100-0400Z‡)  |                      |
| Winnipeg Center App/Dep Con 132.125 (0400–1100Z‡)   |                      |
| Tower 118.1 (1100–0400Z‡) Gnd Con 121.9   |                      |
| App/Dep 119.2 MF 118.1 (0400–1100Z‡ 5 NM to 4000′)  |                      |
| Timmins, ON (CYTS)  | H-11                 |
| ATIS 124.95 (1000–0500Z‡)   |                      |
| Toronto Center App/Dep Con 128.3 226.3 MF 122.3 (5 NM to 4000')   |                      |
| Toronto/Buttonville Muni, ON (CYKZ)   | L-31                 |
| ATIS 127.1 (1200–0400Z‡)  |                      |
| Toronto Center App Con 133.4 Toronto Center Dep Con 133.4   |                      |
| Tower 124.8 119.9 (1200–0400Z‡) Gnd Con 121.8   |                      |
| MF 124.8 (0400–1200Z‡ No gnd station. 5 NM shape irregular to below 2500')  | L-31                 |
| Toronto/City Centre, ON (CYTZ)  | L-31                 |
| ATIS 133.6 (1130–0400Z‡)  |                      |
| App Con 133.4 Dep Con 133.4   |                      |
| Tower 118.2 119.2 (1130–0400Z‡) Gnd Con 121.7  Toronto/Lester B Pearson Intl, ON (CYYZ)   | H-11B, L-31          |
| ATIS 120.825  | 11=11B, L=31         |
| App Con 124.475 125.4 132.8 Dep Con 127.575 128.8   |                      |
| Tower 118.35 118.7 Gnd Con 118.0 119.1 121.65 121.9   |                      |
| Cinc Del 121.3 (1200–0400Z‡) VFR Advisory 119.3 133.4   |                      |
| Trenton, ON (CYTR)  | H-11C, L-31E, 32     |
| ATIS 135.45 257.7   | 11–110, 1–311, 32    |
| App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8   |                      |
| Cinc Del 124.35 286.4   |                      |
| Trenton/Mountain View, ON (CPZ3)  | H-11C, L-31E, 32     |
| Trenton Mil Advisory 268.0  | 11–110, 1–511, 52    |
| Trois-Rivieres, QC (CYRQ)   | H-11C, L-32          |
|   | 11 110, 1 02         |
| * **  |                      |
| Montreal Center App/Dep Con 128.225 229.2   |                      |
| Montreal Center App/Dep Con 128.225 229.2<br>MF 123.0 (5 NM to 3200')   | H_11                 |
| Montreal Center App/Dep Con 128.225 229.2<br>MF 123.0 (5 NM to 3200')<br>Val-D'or, QC (CYVO)  | H-11                 |
| Montreal Center App/Dep Con 128.225 229.2  MF 123.0 (5 NM to 3200')  Val-D'or, QC (CYVO)  Montreal Center App/Dep Con 125.9 308.3   | H-1:                 |
| Montreal Center App/Dep Con 128.225 229.2  MF 123.0 (5 NM to 3200')  Val-D'or, QC (CYVO)  Montreal Center App/Dep Con 125.9 308.3  MF 118.5 (1030-03252‡ 5 NM to 4000')   |                      |
| Montreal Center App/Dep Con 128.225 229.2  MF 123.0 (5 NM to 3200')  Val-D'or, QC (CYVO)  Montreal Center App/Dep Con 125.9 308.3  MF 118.5 (1030–0325Z‡ 5 NM to 4000')  Vancouver Intl, BC (CYVR)  |                      |
| Montreal Center App/Dep Con 128.225 229.2  MF 123.0 (5 NM to 3200')  Val-D'or, QC (CYVO)  Montreal Center App/Dep Con 125.9 308.3  MF 118.5 (1030–0325Z‡ 5 NM to 4000')  Vancouver Intl, BC (CYVR)  ATIS 124.6 124.75   |                      |
| Montreal Center App/Dep Con 128.225 229.2  MF 123.0 (5 NM to 3200')  Val-D'or, QC (CYVO)  Montreal Center App/Dep Con 125.9 308.3  MF 118.5 (1030–0325Z‡ 5 NM to 4000')  Vancouver Intl, BC (CYVR)  ATIS 124.6 124.75  App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) |                      |
| Montreal Center App/Dep Con 128.225 229.2  MF 123.0 (5 NM to 3200')  Val-D'or, QC (CYVO)  Montreal Center App/Dep Con 125.9 308.3  MF 118.5 (1030–0325Z‡ 5 NM to 4000')  Vancouver Intl, BC (CYVR)  ATIS 124.6 124.75   | H-11<br>H-1B, L-1    |

| ACILITY NAME  | CHART & PANEL                      |
|---|------------------------------------|
| Victoria Intl, BC (CYYJ)  | H-1B, L-1E                         |
| ATIS 118.8 (1400-0800Z‡)  |                                    |
| App Con 125.95 308.4 Dep Con 133.85 308.4   |                                    |
| Tower 119.1 (Outer) 119.7 (Inner) 239.6   |                                    |
| Gnd Con 121.9 361.4 (1400-0800Z‡ OT ctc Kamloops 119.7)   |                                    |
| Clnc Del 126.4 (1400-0800Z‡)  |                                    |
| Victoriaville, QC (CSR3)  | L-32H                              |
| Montreal Center App Con 132.35  |                                    |
| Waterville/Kings Co Muni, NS (CCW3)   | L-32J                              |
| Greenwood Trml App/Dep Con 120.6 335.9  |                                    |
| Greenwood Tower 119.5 324.3   |                                    |
| Wiarton, ON (CYVV)  | H-11B, L-31D                       |
| Toronto Center App/Dep Con 132.575  |                                    |
| MF 122.2 (5 NM to 3700')  | 11 400 1 01                        |
| Windsor, ON (CYQG)  | H-10G, L-8J                        |
| ATIS 134.5 (1130–0330Z‡)  |                                    |
| Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2  |                                    |
| Tower 124.7 (1130–0330Z‡) Gnd Con 121.7   |                                    |
| MF 124.7 (0330–1130Z‡ 6 NM irregular shape to below 3000')  |                                    |
| VFR Advisory Detroit App Con 134.3  | 11 445 1 001                       |
| Yarmouth, NS (CYQI)  Monoton Contar Ann (Don Con 123 0 368 F. ME 123 0 (F.NIM to 3100))   | H-11E, L-32I                       |
| Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100')   |                                    |
| MEXICO  |                                    |
| CILITY NAME   | CHART & PANEL                      |
| Abraham Gonzalez Intl (MMCS)  | H-4K, L-6F                         |
| Juarez App Con 119.9 Juarez Tower 118.9   |                                    |
| Del Norte Intl (MMAN)   | H-7B, L-20G                        |
| ATIS 127.55 (1300-0300Z‡)   |                                    |
| Monterrey App 119.75 120.4 Tower 118.6  |                                    |
| Durango Intl (MMDO)   | H-7A                               |
| ATIS 132.1  |                                    |
| Tower 118.1 Durango Info 122.3  |                                    |
| General Abelardo L Rodriguez Intl (MMTJ)  | H-4H, L-4H                         |
| ATIS 127.9  |                                    |
| Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Clnc Del 122.35   |                                    |
| Tijuana Info 132.1  |                                    |
| General Lucio Blanco Intl (MMRX)  | H-7B, L-20H                        |
| Reynosa App Con 118.8 Reynosa Tower 118.8   |                                    |
| General Mariano Escobedo Intl (MMMY)  | H-7B, L-20G                        |
| ATIS 127.7  |                                    |
| Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9  |                                    |
| General R Fierro Villalobos Intl (MMCU)   | L-61                               |
| ATIS 127.9  |                                    |
| Chihuahua App Con 121.0 Chihuahua Tower 118.4   |                                    |
| General Rodolfo Sanchez Taboada Intl (MMML)   | H-4H, L-4J, 5A                     |
| delicial Rodollo Salicitez Tabbada IIId (MININE)  |                                    |
| ATIS 127.6  |                                    |
| · · · · · · · · · · · · · · · · · · ·   |                                    |
| ATIS 127.6  Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3   | H–7C, L–21A                        |
| ATIS 127.6  | H-7C, L-21A                        |
| ATIS 127.6  Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3  General Servando Canales (MMMA)  Matamoros App Con 118.0 Matamoros Tower 118.0   |                                    |
| ATIS 127.6  Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3  General Servando Canales (MMMA)  Matamoros App Con 118.0 Matamoros Tower 118.0   | ·                                  |
| ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3  General Servando Canales (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0  Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4                              | H-7C, L-21A<br>H-7B<br>H-7B, L-20G |
| ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3 General Servando Canales (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0 Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4                                | H–7B                               |
| ATIS 127.6  Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3  General Servando Canales (MMMA)  Matamoros App Con 118.0 Matamoros Tower 118.0  Plan De Guadalupe Intl (MMIO)  Saltillo App Con 127.4 Saltillo Tower 118.4  Quetzalcoatl Intl (MMNL) | H–7B                               |

In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.

NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

#### GENERAL INFORMATION

#### PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:

- 1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., 🚳, 🔾 😥
- 2. Approach lighting systems that do not bear a system identification are indicated with a negative "🐧" beside the name.

A star (\*) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., 0\*

To activate lights use frequency indicated in the communication section of the chart with a **0** or the appropriate lighting system identification e.g., UNICOM 122.8 **0**, **\delta**. **\text{ \text{\delta}}** 

| allon | e.g., | DIVICOM | 122.0 | U, | <b>W</b> | v |  |
|-------|-------|---------|-------|----|----------|---|--|
| KEY   | MIKE  |         |       |    |          |   |  |

7 times within 5 seconds

5 times within 5 seconds 3 times within 5 seconds

Highest intensity available

Medium or lower intensity (Lower REIL or REIL-off) Lowest intensity available (Lower REIL or REIL-off)

**FUNCTION** 

#### CHART CURRENCY INFORMATION

FAA procedure amendment number Amdt 11A 99365 Date of latest change Orig 00365

The Chart Date indentifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

#### **MISCELLANEOUS**

- ★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
- # Indicates control tower temporarily closed UFN.

09071 LEGEND

#### INSTRUMENT APPROACH PROCEDURES (CHARTS)

#### AIRPORT DIAGRAM Runways Helicopter Alighting Areas (H) [H] [H] [A] [H] Other Than Stopways, Taxiways, Displaced Hard Negative Symbols used to identify Copter Procedures Hard Surface Parking Areas, Threshold Surface landing point...... 🕕 🛨 🖪 Water Runways xxx Runway Threshold elevation.....THRE 123 Closed Runway TDZ elevation.....TDZE 123 Closed Meta Under Runway Taxiway Construction Surface -- 0.3% DOWN (shown when runway slope is greater than ARRESTING GEAR: Specific arresting gear systems; or equal to 0.3%) e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to Runway Slope measured to midpoint on runways appropriate DOD publications. 8000 feet or longer. uni-directional bi-directional ₹ Jet Barrier U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of ARRESTING SYSTEM / approximately 7 feet and proximity to edge of runway may create an obstruction for some types REFERENCE FEATURES of aircraft. Buildings..... Approach light symbols are shown in the Tanks..... Flight Information Handbook. Airport digaram scales are variable. True/magnetic North orientation may vary from Radar Reflectors diagram to diagram Control Tower # Coordinate values are shown in 1 or ½ minute Hot Spot ...... increments. They are further broken down into 6 second ticks, within each 1 minute increments. # When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and Positional accuracy within ±600 feet unless otherwise further identified as TWR noted on the chart. Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds All new and revised airport diagrams are shown referif any) but excluding areas designated as stopways. enced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible A D symbol is shown to indicate runway declared with local coordinates published in FLIP. (Foreign Only) distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information. Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression. Refer to the appropriate Supplement/Directory for applicable codes e.g., RWY 14-32 S75, T185, ST175, TT325 PCN 80 F/D/X/U Rwy 2 ldg 8000' **FIELD** Runway Displaced Threshold **ELEV** Slope Runway 174 **EMAS** Identification 1200 X 200 0.7% UP 1000 X 200 9000 X 200 023.2°() Arresting System Operations ELEV Runway End (in feet) 164 Runway Dimensions Runway Heading Elevation (in feet) (Magnetic) Stopway Dimensions (in feet) SCOPE Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

RALEIGH/DURHAM

RALEIGH-DURHAM INTL (RDU)

# AIRPORT DIAGRAMS HOT SPOTS

An "airport surface hot spot" is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

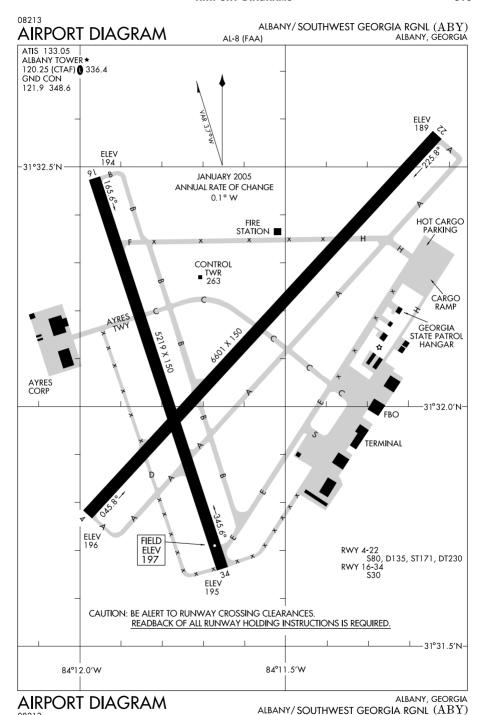
A "hot spot" is a runway safety related problem area on a airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as circles or polygons designated as "HOT¹", "HOT²", etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

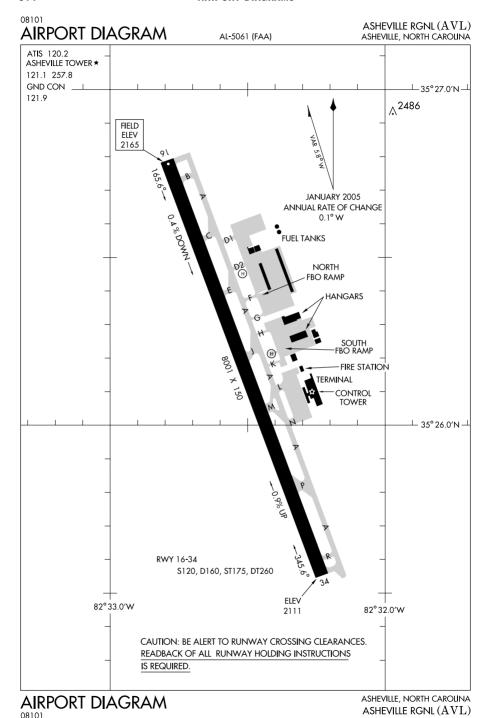
| risk has been reduced or eliminated.    |                  |   |
|---|------------------|---|
| CITY/AIRPORT                            | HOT SPOT         | DESCRIPTION   |
|   | ALABAMA          |   |
| MONTGOMERY                              |                  |   |
| MONTGOMERY RGNL                         | 1                |   |
| (DANNELY FIELD) (MGM)                   | HOT <sup>1</sup> | Intersection of Twy A3 and the terminal ramp.  Potential confusion of Twy A3 as the taxi route to     |
|   |                  | Rwy 10/28.  |
|   | HOT <sup>2</sup> | Intersection of the Twy A5 and the ANG ramp.  |
|   |                  | Potential exiting Rwy 10/28 at Twy A5.  |
|   | FLORIDA          |   |
| DAYTONA BEACH                           |                  |   |
| DAYTONA BEACH INTL (DAB)                | HOT <sup>1</sup> | Pilots taxiing southbound on Twy W sometimes  |
|   |                  | miss the right turn on Twy S and enter the runway without clearance.                                  |
| MIAMI                                   |                  | without clearance.  |
| MIAMI INTL, FL (MIA)                    | HOT <sup>1</sup> | Multiple intersections closely spaced.  |
|   | HOT <sup>2</sup> | Departure taxi out of Spot 15, Spot 14, Spot 13,  |
|   |                  | misidentification of Twy P and Twy Q at Twy T has   |
|   | HOT <sup>3</sup> | lead to rwy incursions onto Rwy 12–30.  Twy runway ends in close proximity.                           |
| STUART                                  | 1101             | Twy fullway chas in close proximity.  |
| WITHAM FIELD (SUA)                      | HOT <sup>1</sup> | Intersecting rwys, wrong rwy departure risk. (Check   |
|   | 2                | rwy alignment.)   |
|   | HOT <sup>2</sup> | Rwy 12 and Twy A1.  |
| Lancas                                  | GEORGIA          |   |
| ATLANTA HARTSFIELD-JACKSON              | HOT <sup>1</sup> | Intersections of Twy C and Twy D at Rwy 8L-26R.   |
| ATLANTA INTL (ATL)                      | 1101             | Hold short line is only 250 feet after exiting the  |
| , ,                                     |                  | FBO ramp. Rwy hold bar is canted which peaks  |
|   | 2                | towards the twy.  |
|   | HOT <sup>2</sup> | Intersections of Twy C and Twy D at Rwy 8R–26L.  Caution transitioning between the parallel rwys. Rwy |
|   |                  | hold bar is canted which peaks towards the twy.   |
|   |                  | Rwy hold short line is only 380 feet away after   |
|   |                  | exiting Rwy 8L–26R and 70 feet south of the Twy B   |
|   | HOT <sup>3</sup> | centerline.   |
|   | HUT              | Intersection of Twy H at Rwy 8R–26L. Aircraft travelling westbound for the Twy V end–around,          |
|   |                  | mistakenly turn southbound on Twy H and enter Rwy   |
|   | 4                | 8R-26L.   |
|   | HOT <sup>4</sup> | Intersection of Twy D at Rwy 9L–27R. Aircraft   |
|   |                  | southbound on Twy D fail to turn on Twy L and Twy<br>M and enter Rwy 9L–27R. Aircraft crossing Rwy    |
|   |                  | 9L–27R at Twy D southbound to Twy K must turn 45  |
|   |                  | degrees left immediately after crossing the rwy hold  |
|   |                  | bar.  |
| AUGUSTA AUGUSTA RGNL AT BUSH FLD (AGS)  | HOT <sup>1</sup> | Intersection of Twy E and Rwy 17/35.  |
| AUGUSTA RUNL AT DUSH FLD (AUS)          | NORTH CAROL      |   |
| CHARLOTTE                               | NUKIN GAKUL      | INA   |
| CHARLOTTE/DOUGLAS INTL (CLT)            | HOT <sup>1</sup> | Confusing intersection due to convergence of  |
| , |                  | Twy R, Twy A, Twy C and Twy C9, along with grass  |
|   |                  | taland.   |

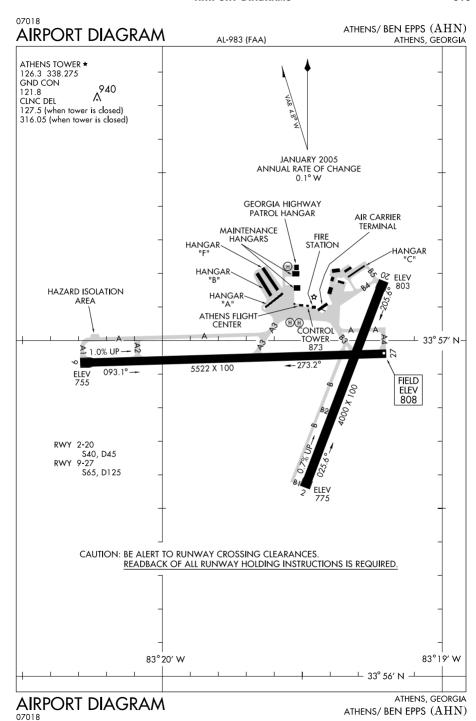
HOT1

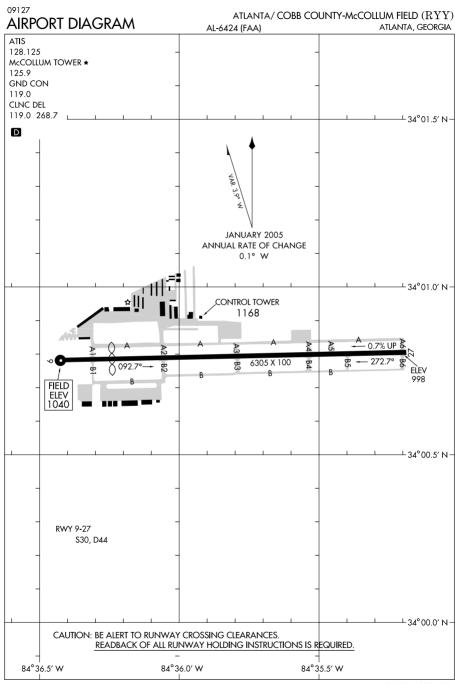
island.

Intersection of Rwy 5R/23L and Twy C.

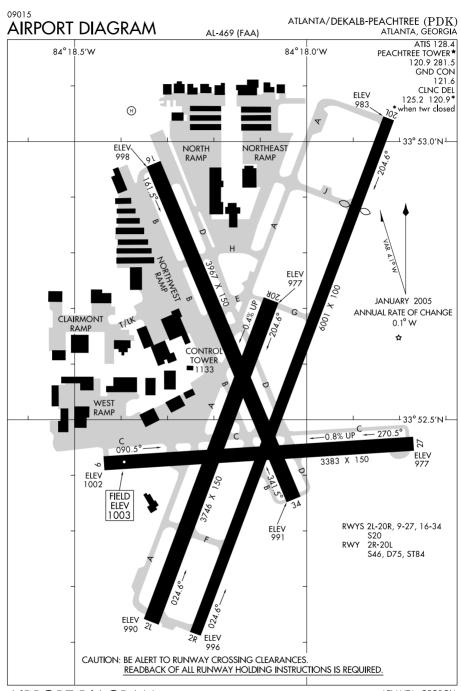




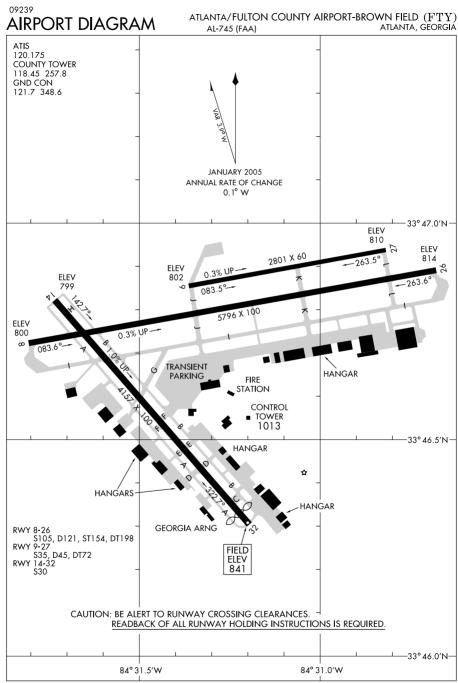




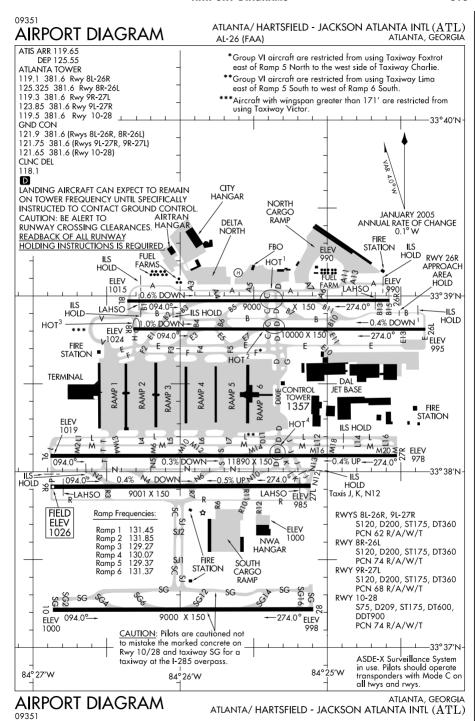
 $\begin{array}{c} \text{ATLANTA, GEORGIA} \\ \text{ATLANTA/ COBB COUNTY-McCOLLUM FIELD } (RYY) \end{array}$ 

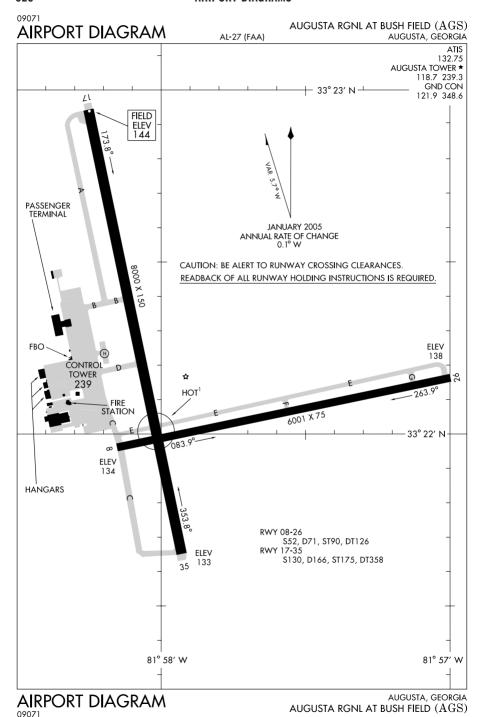


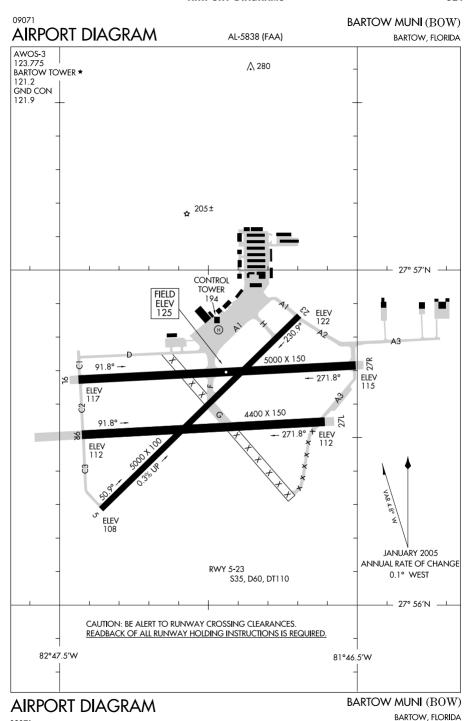
 $\begin{array}{c} \text{ATLANTA, GEORGIA} \\ \text{ATLANTA/DEKALB-PEACHTREE} \ (PDK) \end{array}$ 



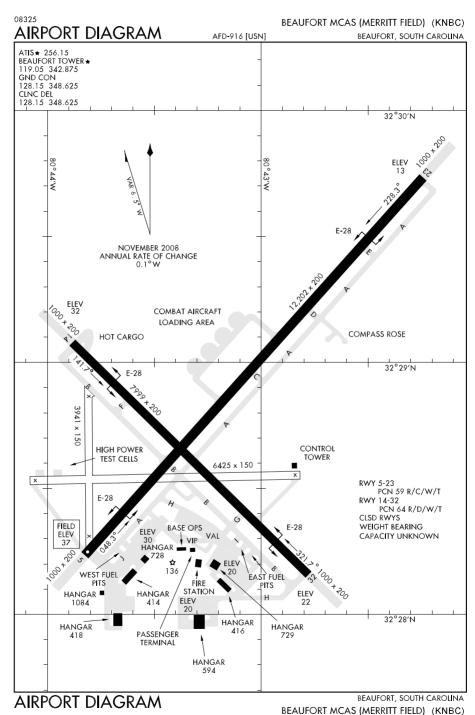
 $\begin{array}{c} \text{ATLANTA, GEORGIA} \\ \text{ATLANTA/FULTON COUNTY AIRPORT-BROWN FIELD } (FTY) \end{array}$ 



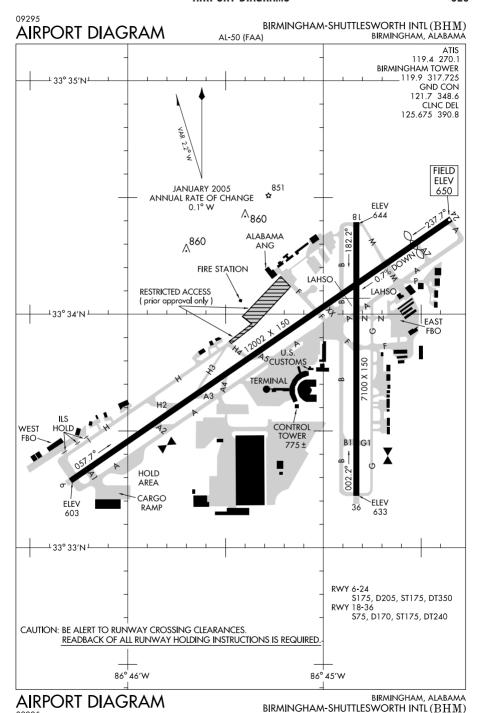




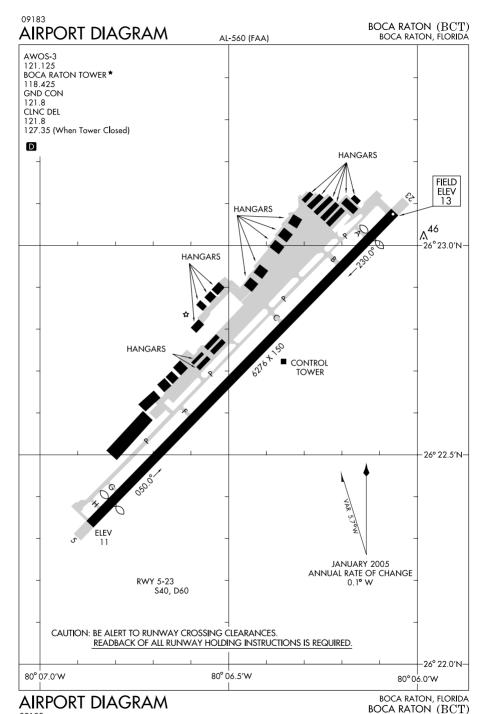
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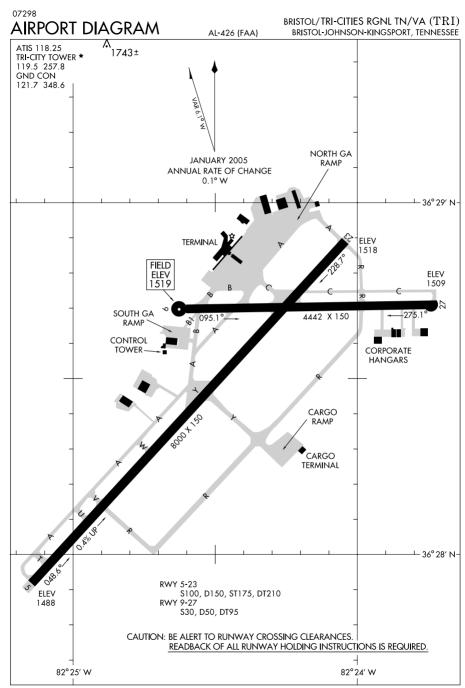


SE, 17 DEC 2009 to 11 FEB 2010

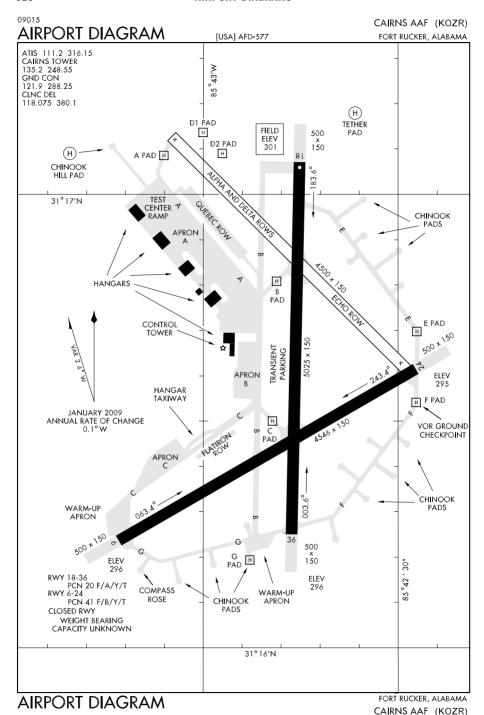


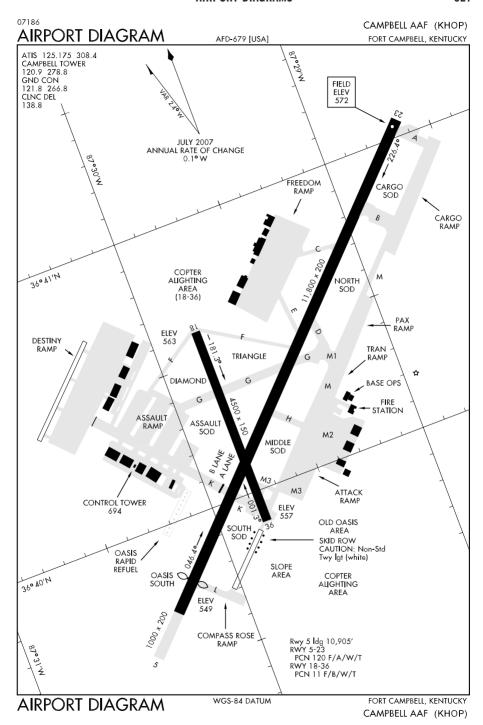
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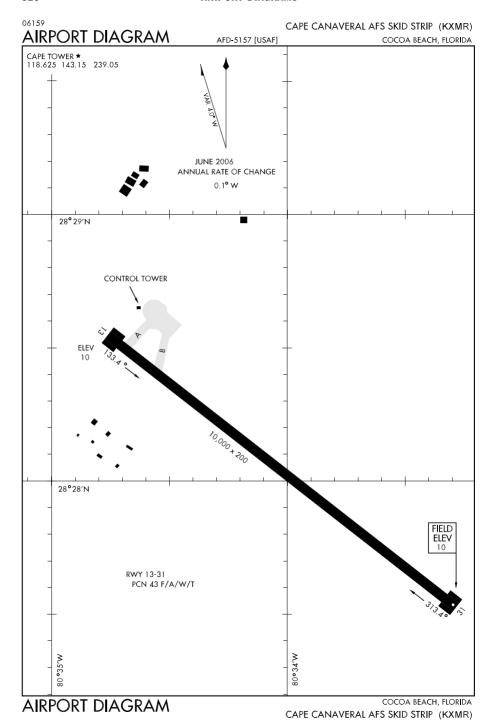


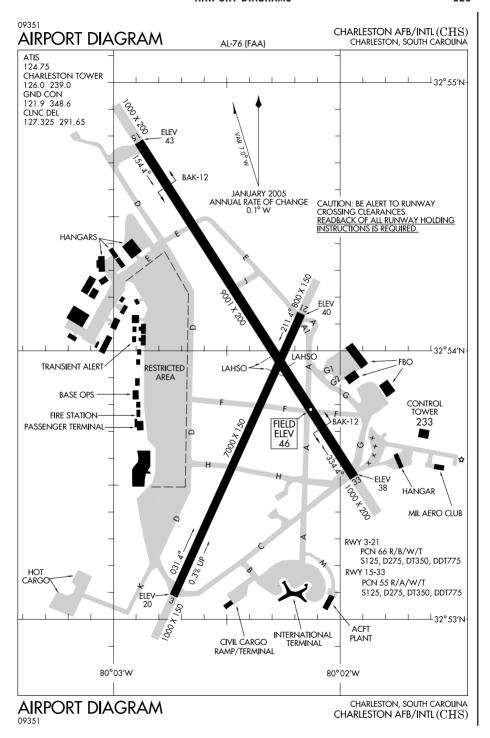


BRISTOL-JOHNSON-KINGSPORT, TENNESSEE BRISTOL/TRI-CITIES RGNL TN/VA  $(TR\,I)$ 

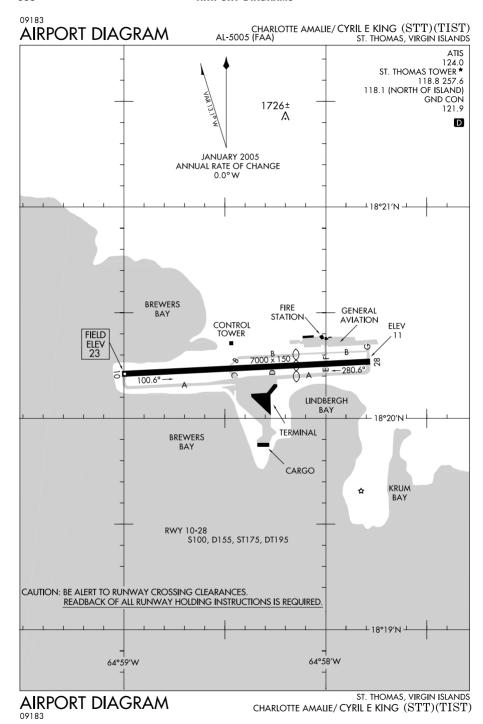


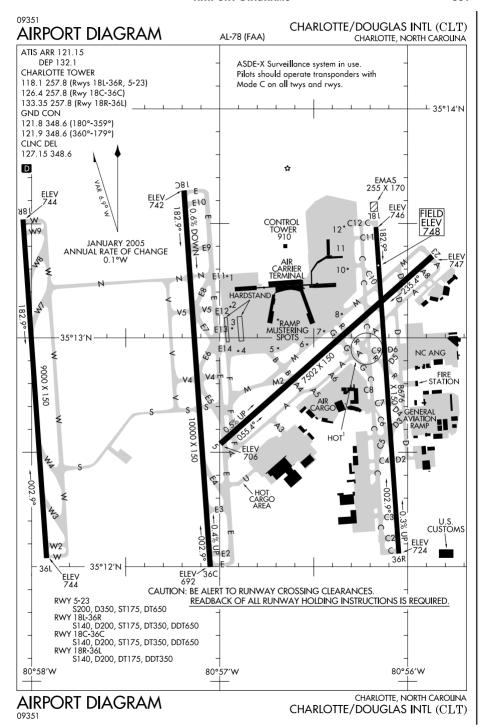


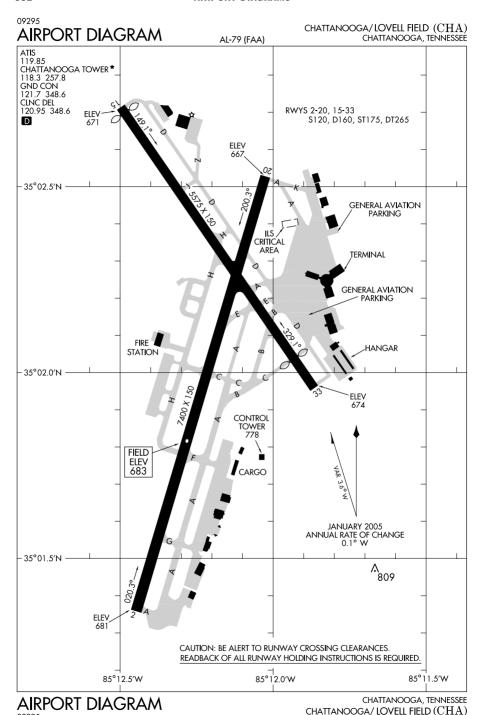


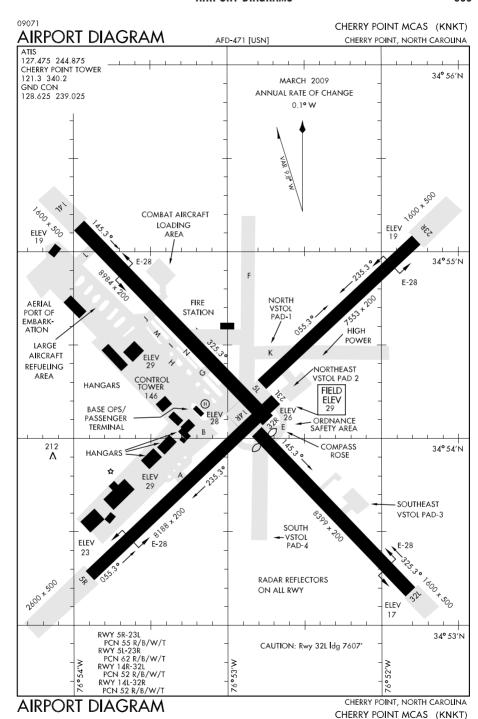


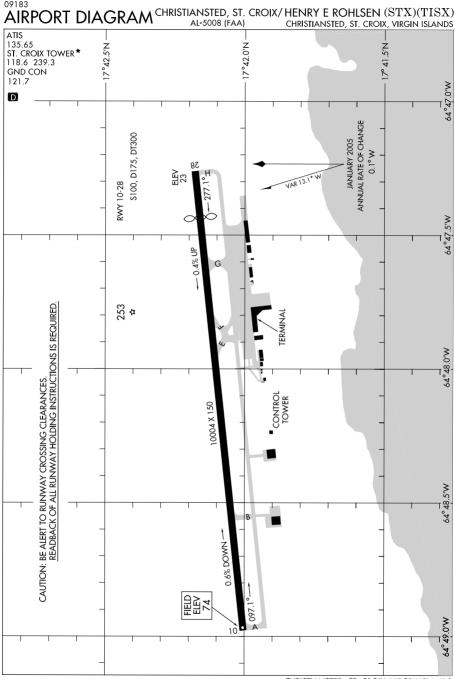
SE, 17 DEC 2009 to 11 FEB 2010



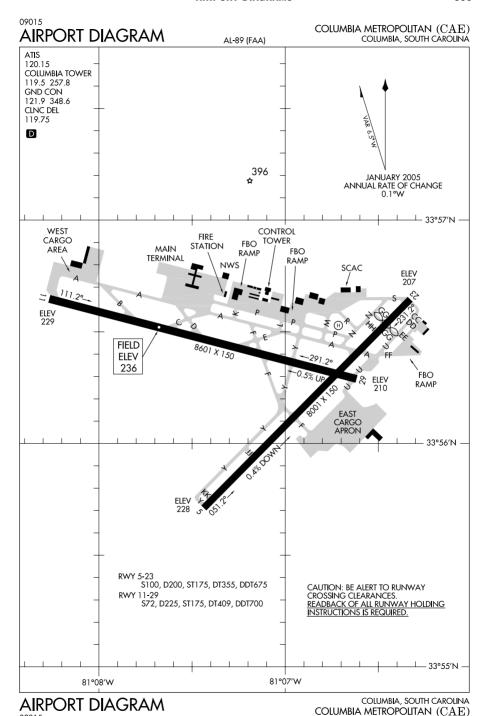


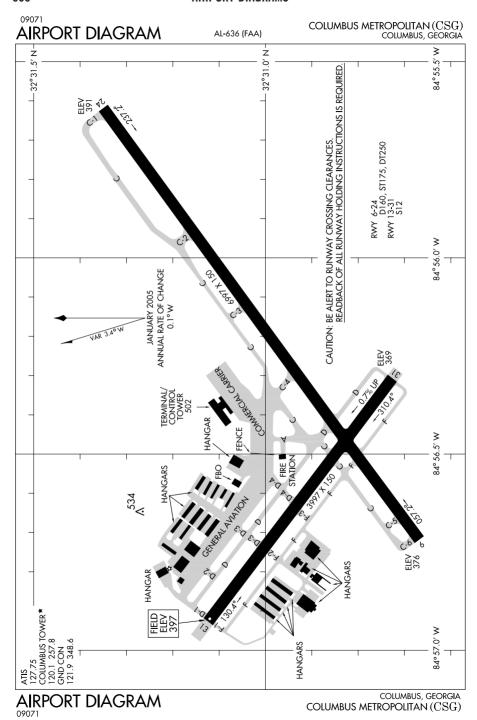




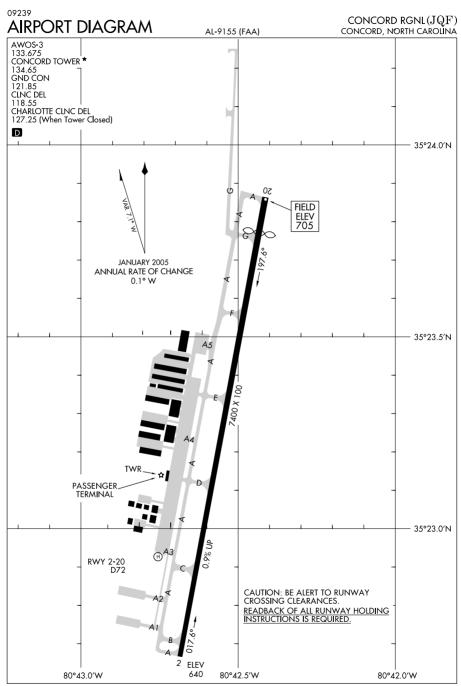


CHRISTIANSTED, ST. CROIX/ HENRY E ROHLSEN (STX)(TISX)

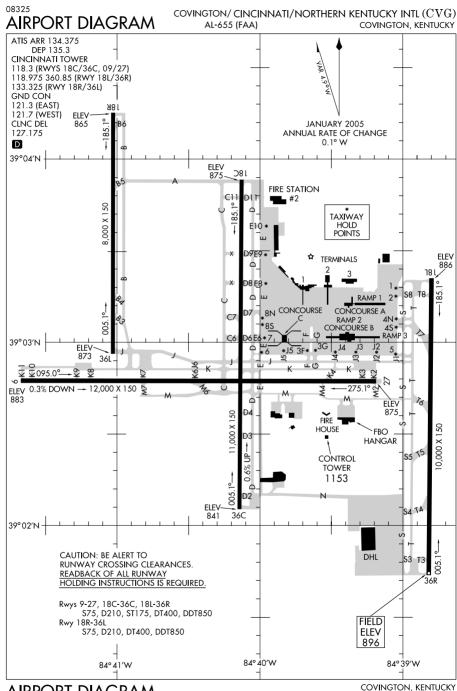




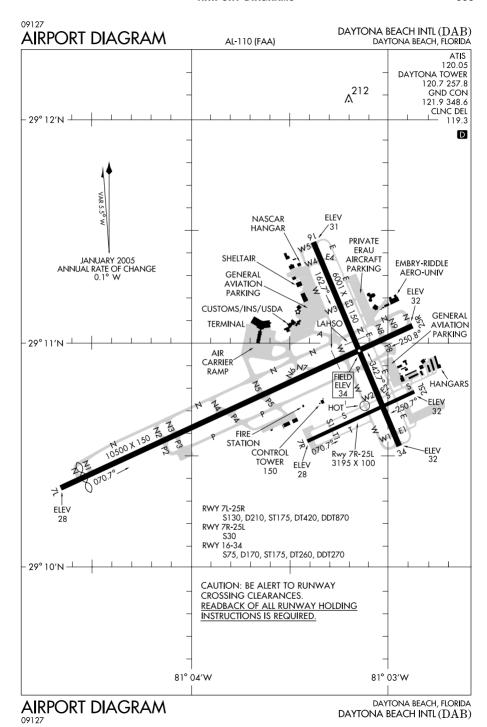
SE, 17 DEC 2009 to 11 FEB 2010

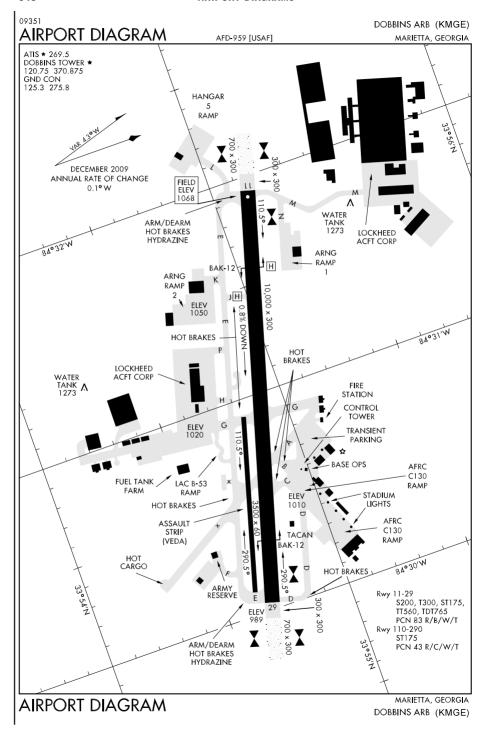


concord, north carolina concord rgnl  $(JQF)\,$ 



COVINGTON/ CINCINNATI/NORTHERN KENTUCKY INTL (CVG)

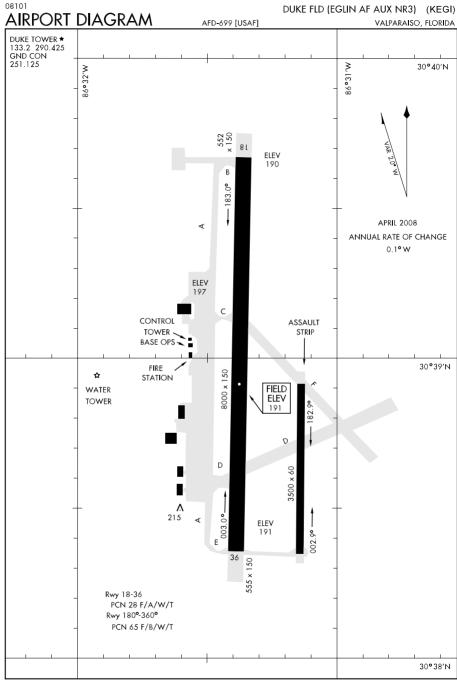




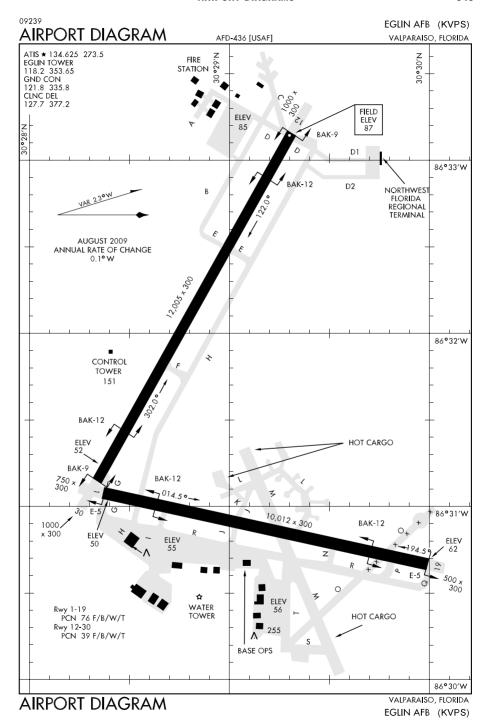
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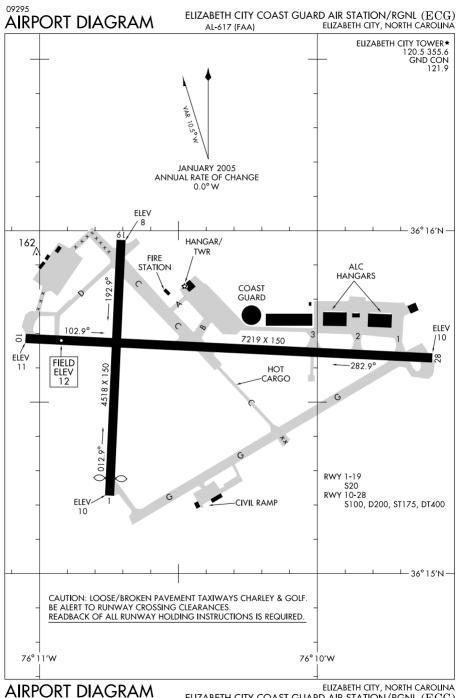
09295 DOTHAN RGNL (DHN) AIRPORT DIAGRAM DOTHAN, ALABAMÁ AL-123 (FAA) ATIS 135.72 CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES DOTHAN TOWER★ READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED. 118.4 257.6 GND CON 121.7 348.6 D ·31° 20′N -RWY 14-32 S75, D105, DT190 PCN 34 F/B/X/T FIELD RWY 18-36 **ELEV** \$75, D105, DT190 401 PCN 30 F/B/X/T **ELEV** 395 182.8° HANGAR 8×08+150 WATER 5500 X 100 TANK FIRE 555 STATION CONTROL TOWER -31° 19′N -TERMINAL 0.3% UP -002.8° ELEV **ELEV** 378 382 В 36 JANUARY 2005 ANNUAL RATE OF CHANGE 0.1° W 85° 27.5′W 85° 27′W 85° 26.5′W AIRPORT DIAGRAM DOTHAN, ALABAMA DOTHAN RGNL (DHN)

09295



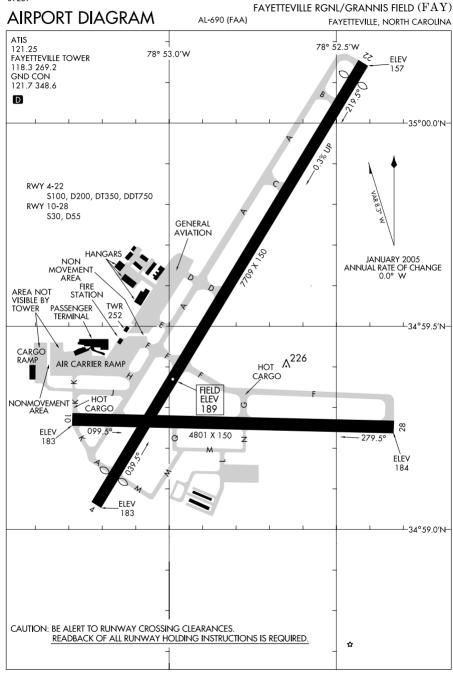
VALPARAISO, FLORIDA DUKE FLD (EGLIN AF AUX NR3) (KEGI)





ELIZABETH CITY COAST GUARD AIR STATION/RGNL (ECG)

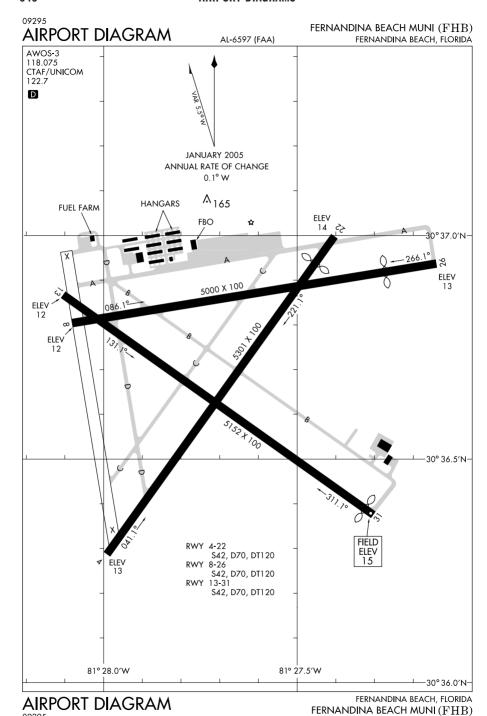
09239

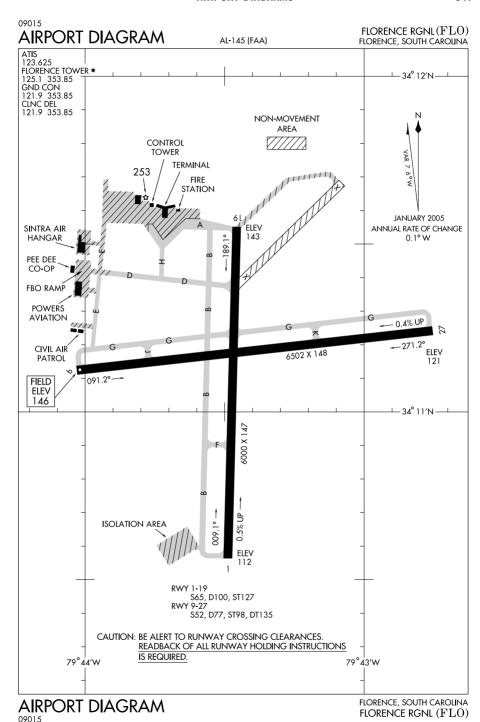


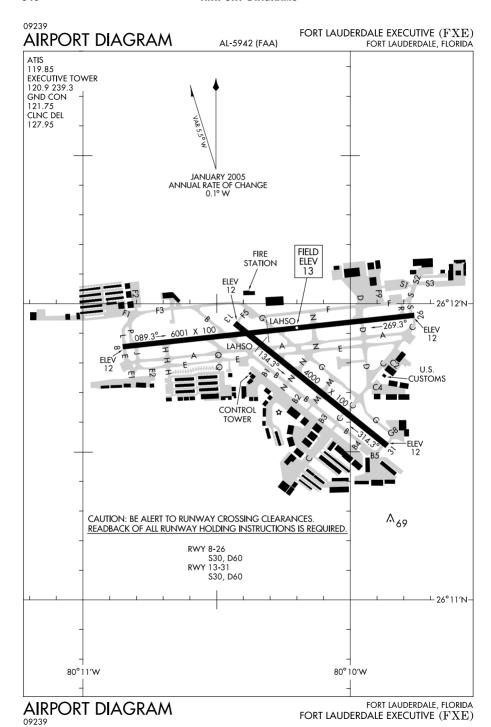
**AIRPORT DIAGRAM** 

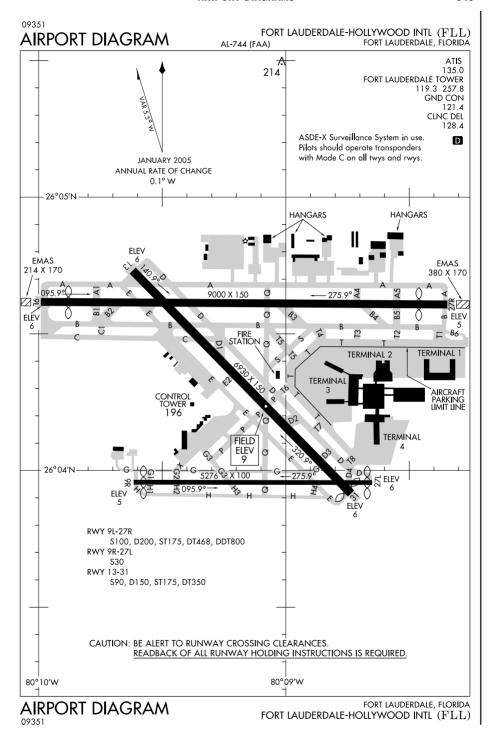
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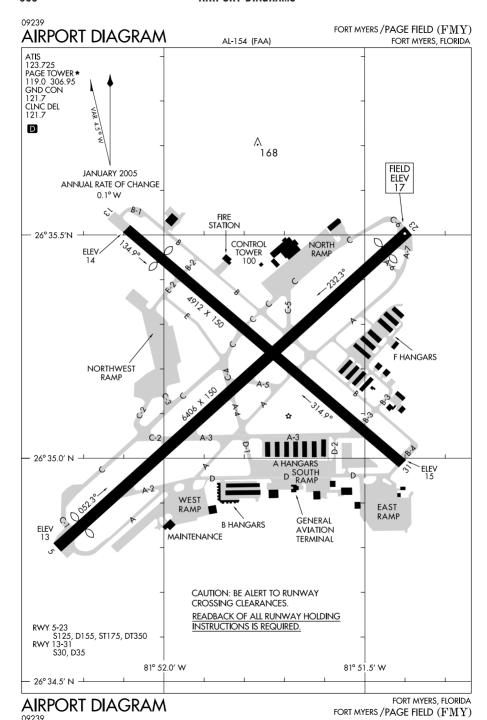
 $\label{eq:fayetteville} \mbox{Fayetteville rgnl/grannis field } (FAY)$ 

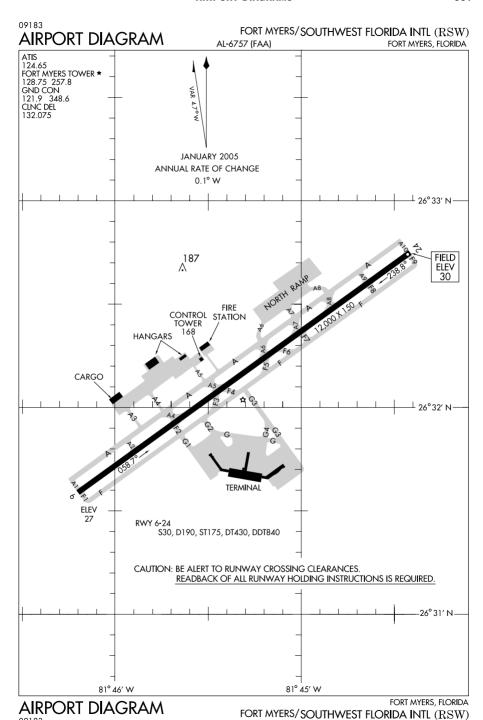


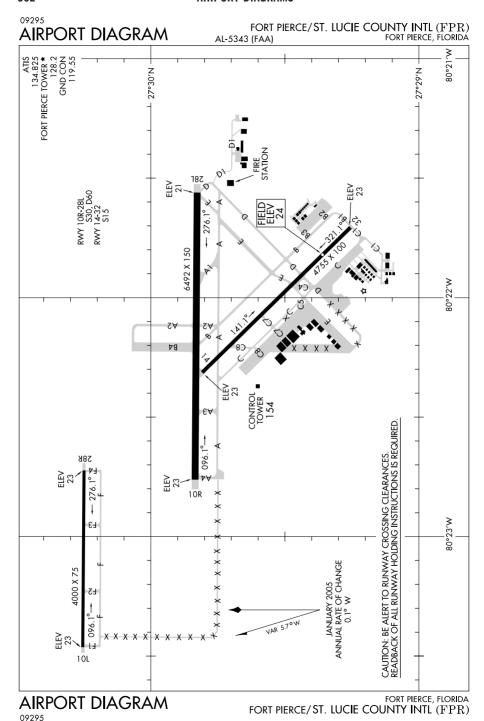


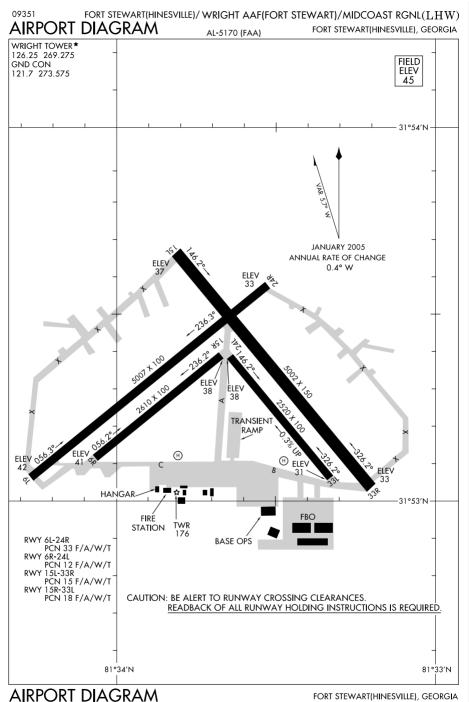




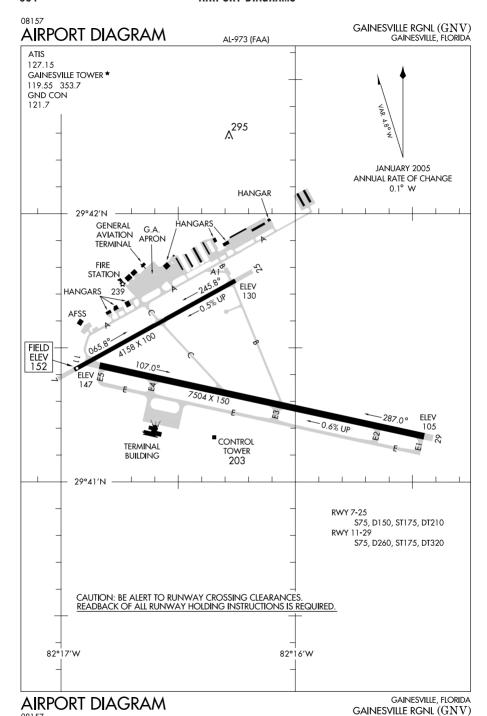


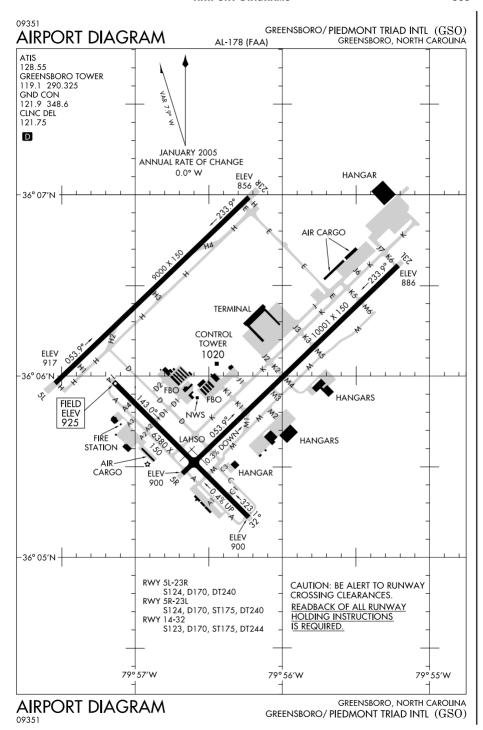


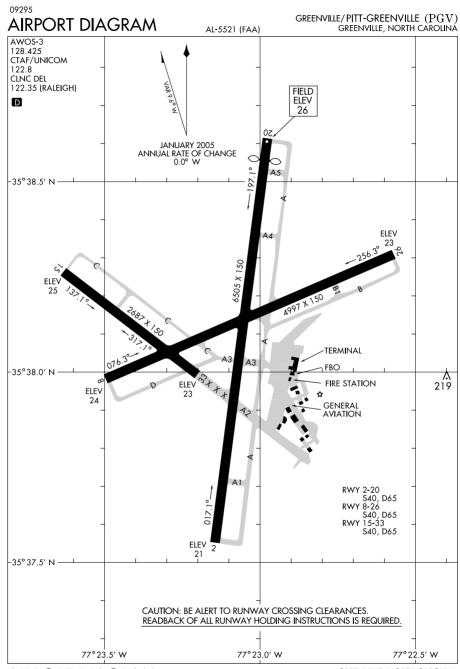




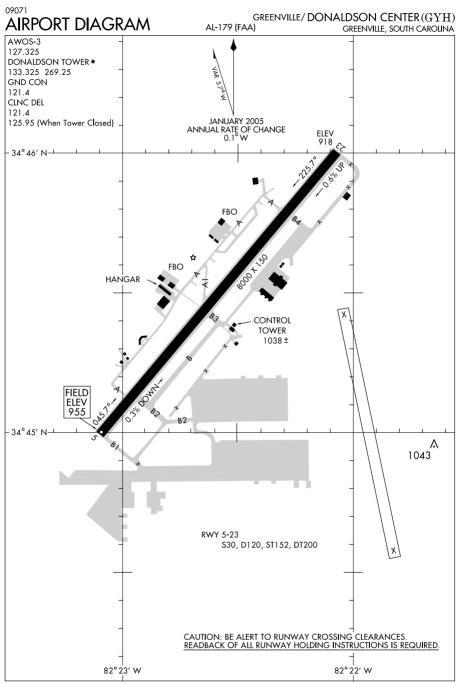
99351 FORT STEWART(HINESVILLE)/ WRIGHT AAF(FORT STEWART)/MIDCOAST RGNL(LHW)



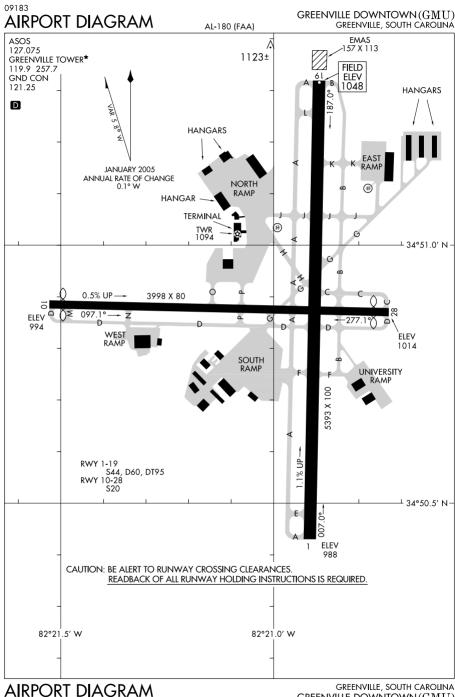




Greenville, north carolina Greenville/Pitt-Greenville (PGV)

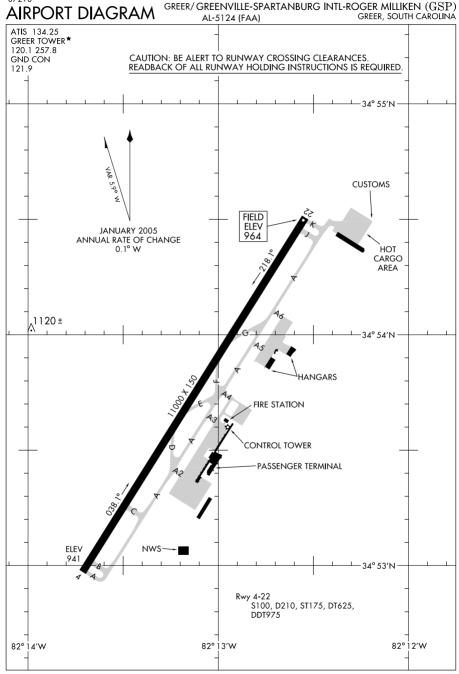


GREENVILLE/ DONALDSON CENTER (GYH)



09183

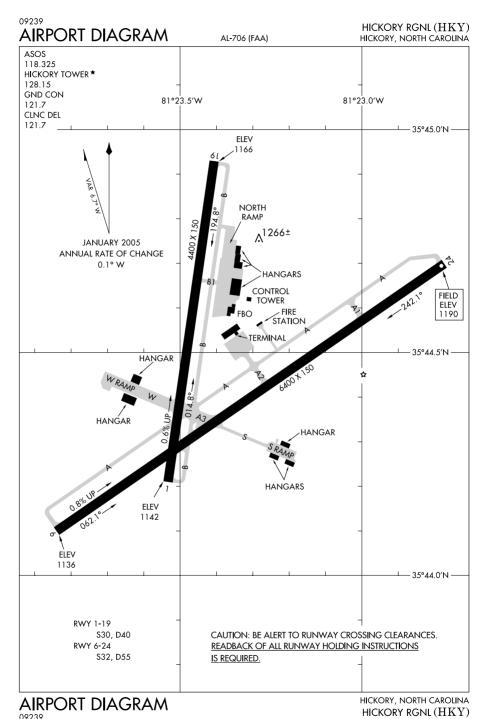
GREENVILLE, SOUTH CAROLINA GREENVILLE DOWNTOWN (GMU) 07298

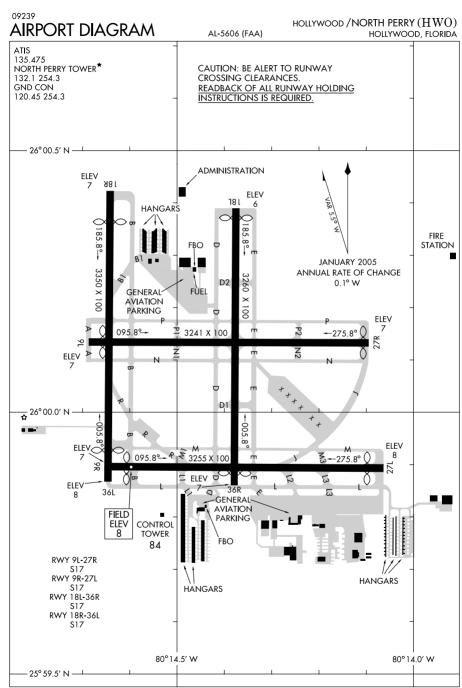


AIRPORT DIAGRAM

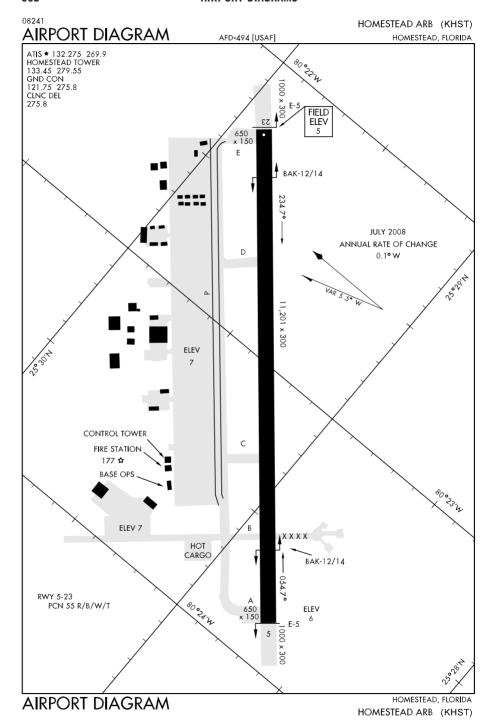
GREER/ GREENVILLE-SPARTANBURG INTL-ROGER MILLIKEN (GSP)

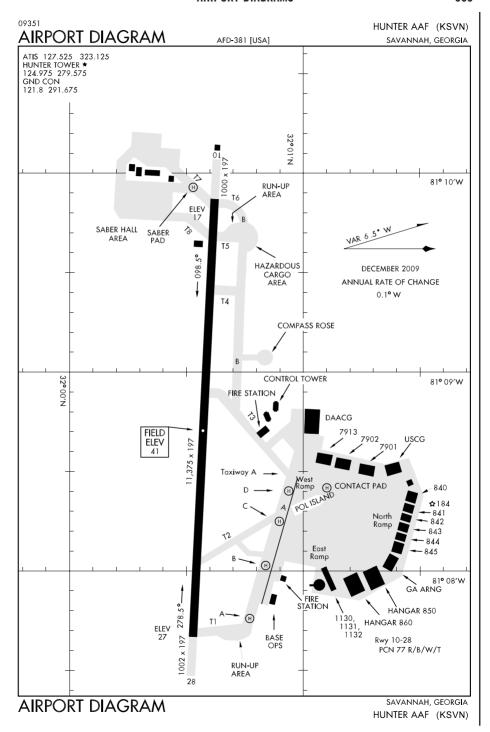
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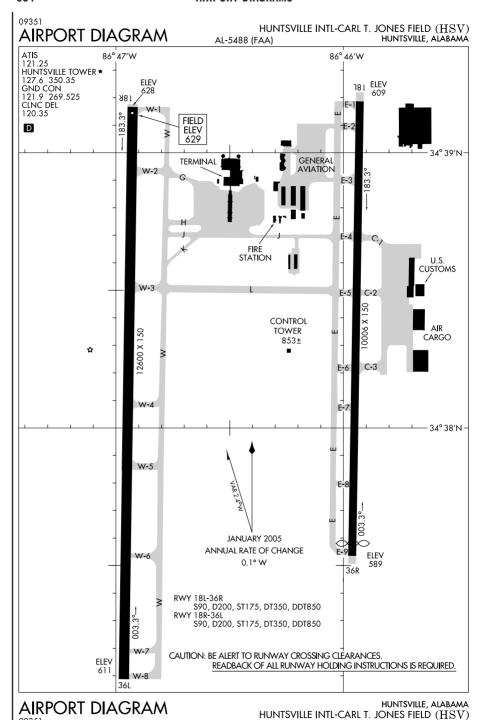


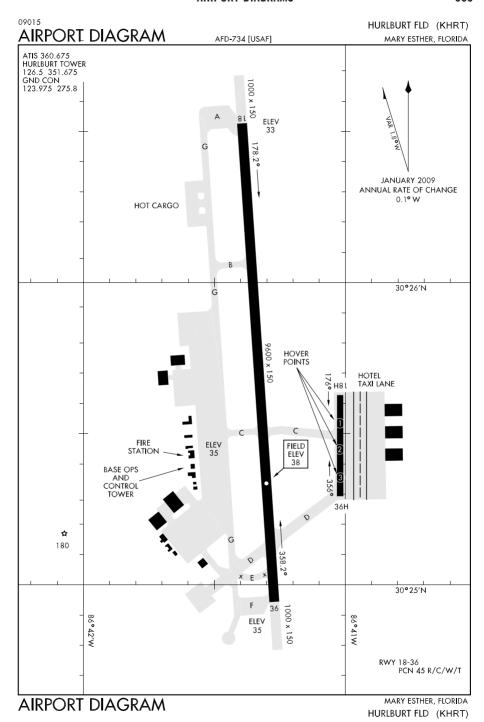


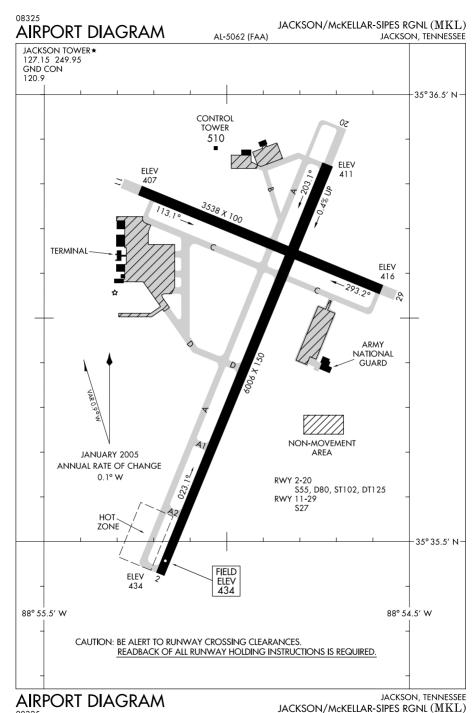
HOLLYWOOD, FLORIDA HOLLYWOOD / NORTH PERRY (HWO)

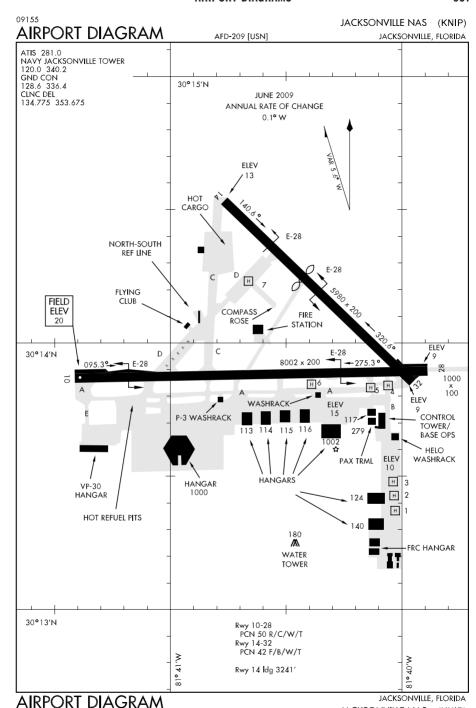




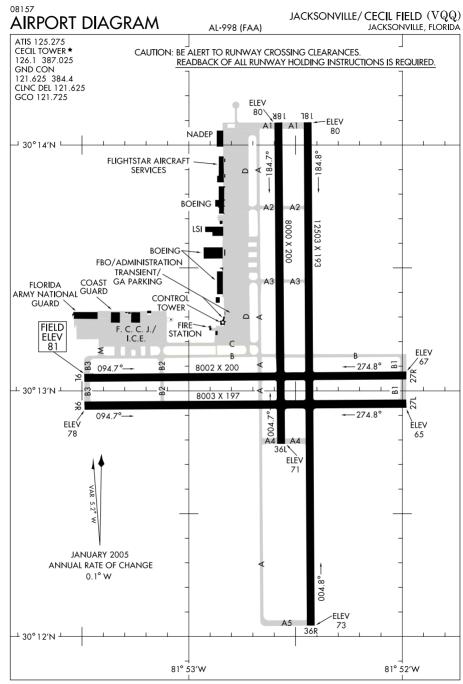




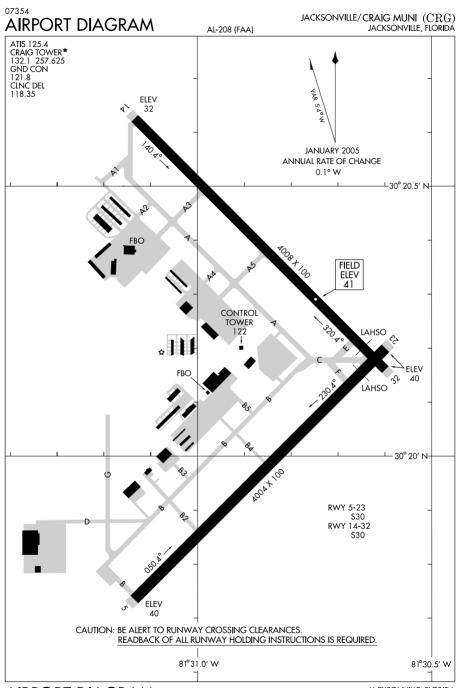




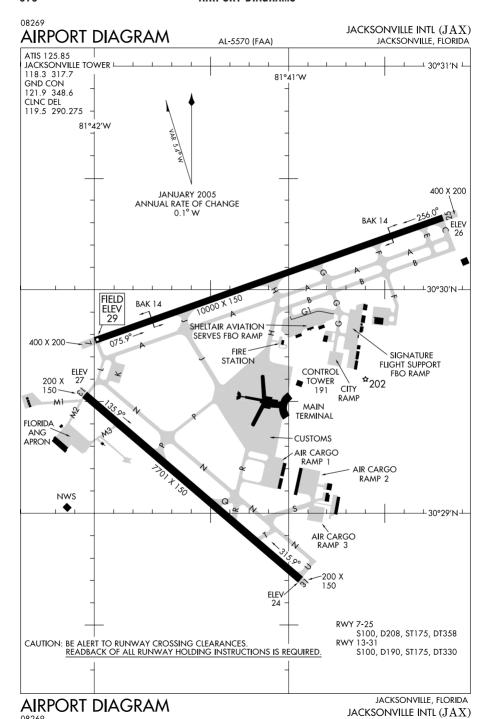
JACKSONVILLE NAS (KNIP)

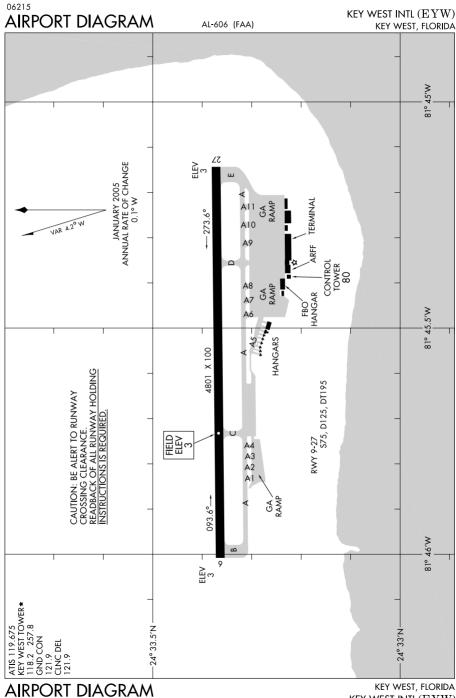


 $\label{eq:jacksonville} \mbox{\sc jacksonville, florida} \\ \mbox{\sc jacksonville/\cecil field} \mbox{\sc ville/\cecil field$ 



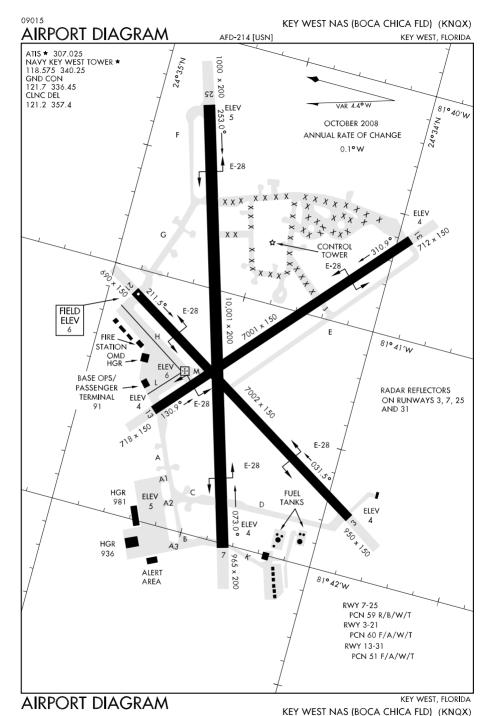
Jacksonville, florida Jacksonville/  $\mbox{CRAIG}$  muni (CRG)

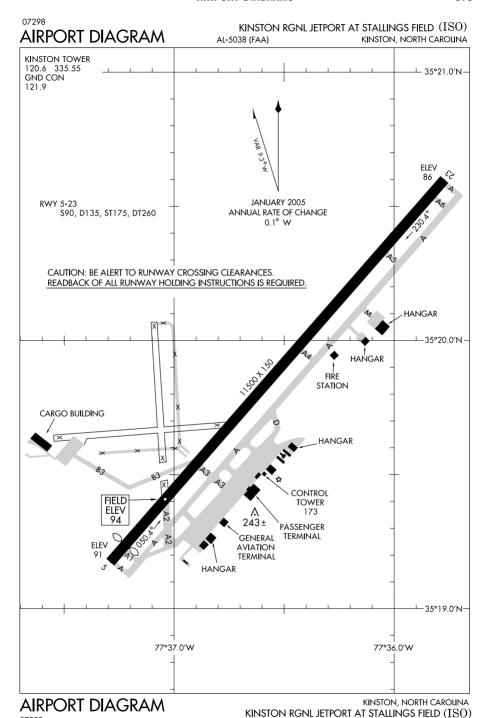




06215

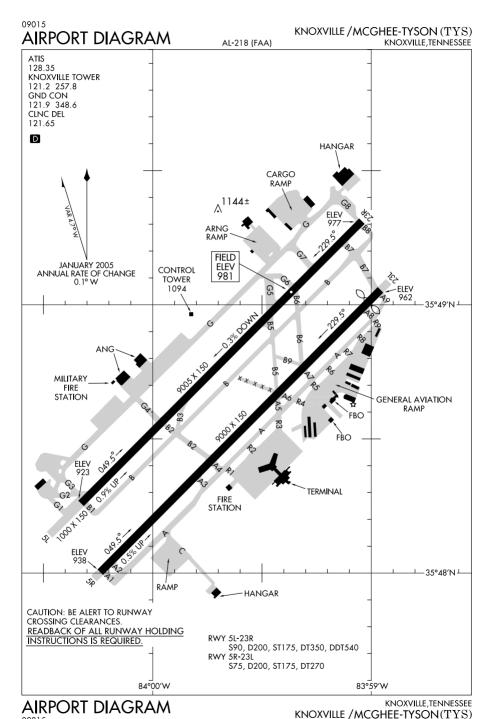
KEY WEST, FLORIDA KEY WEST INTL(EYW)

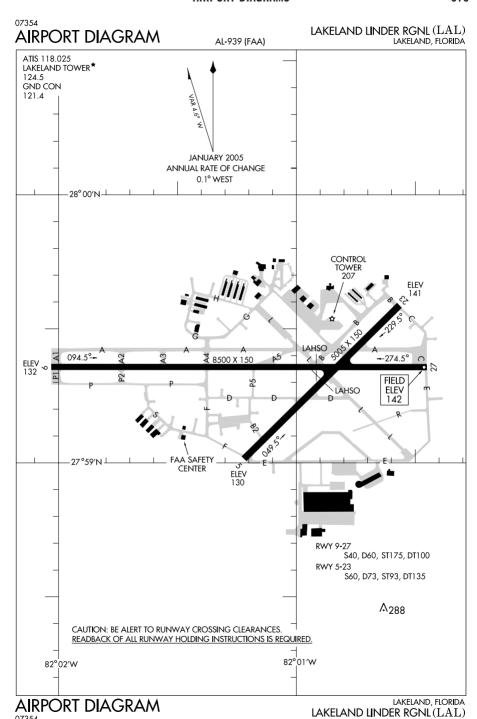


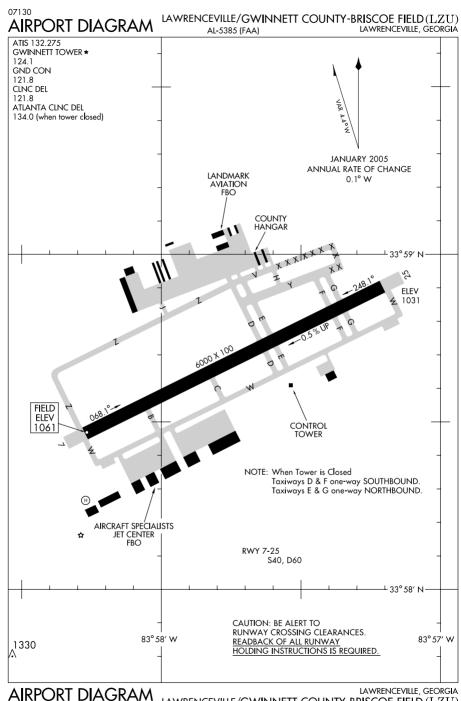


SE, 17 DEC 2009 to 11 FEB 2010

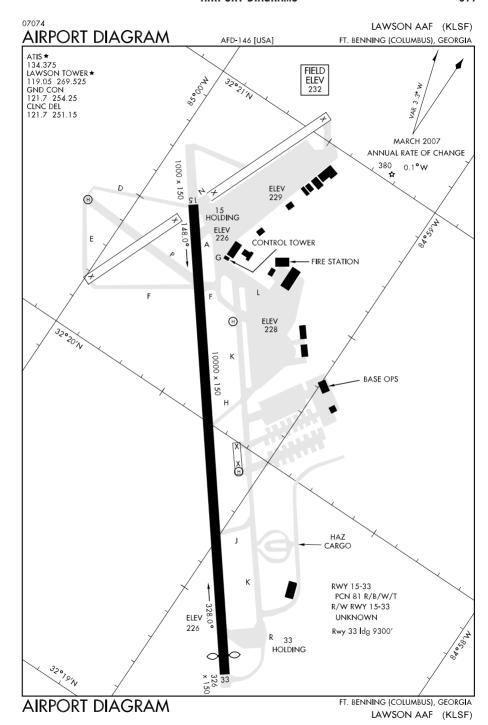
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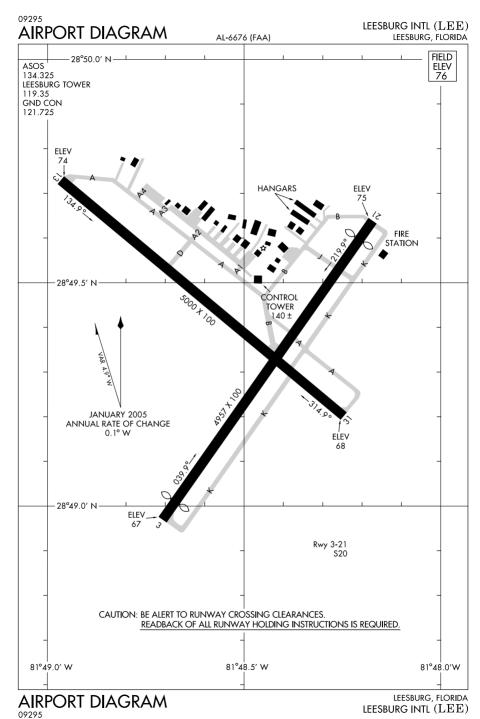


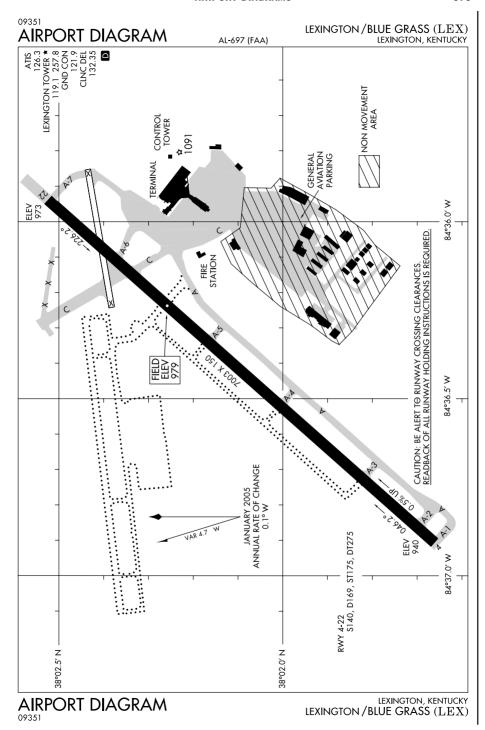


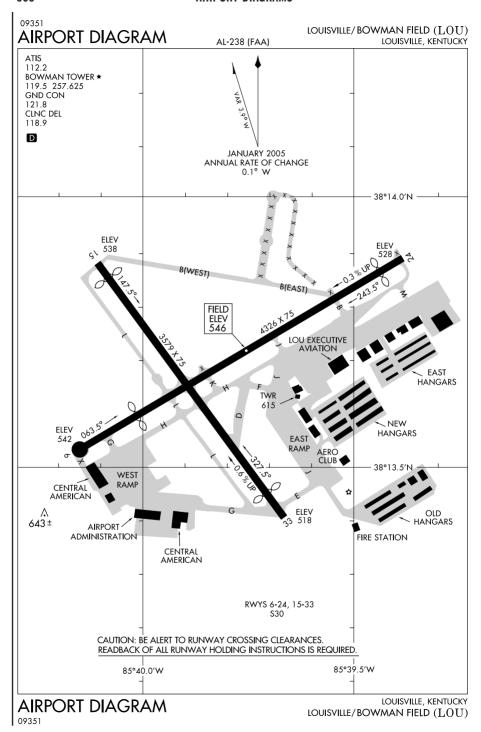
LAWRENCEVILLE/GWINNETT COUNTY-BRISCOE FIELD (LZU)



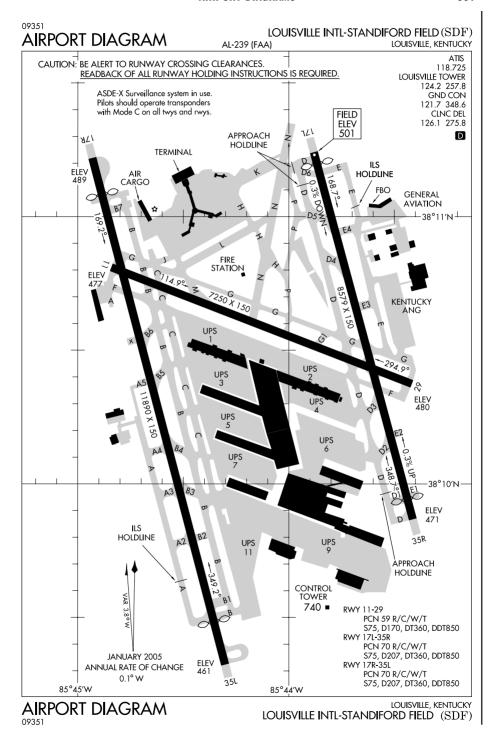
SE, 17 DEC 2009 to 11 FEB 2010

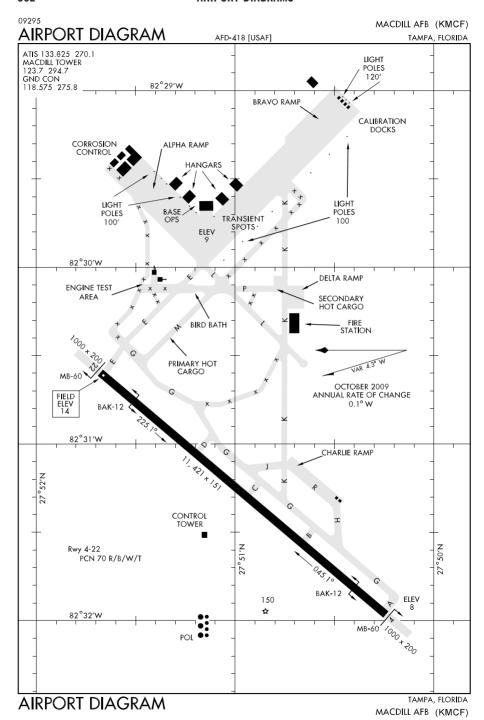


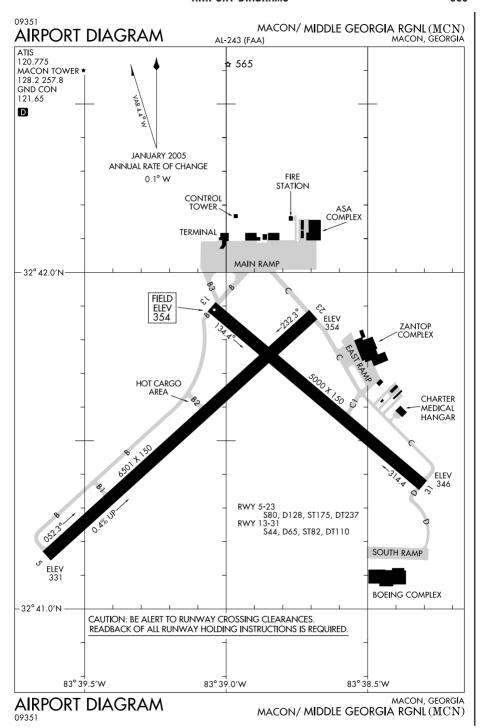


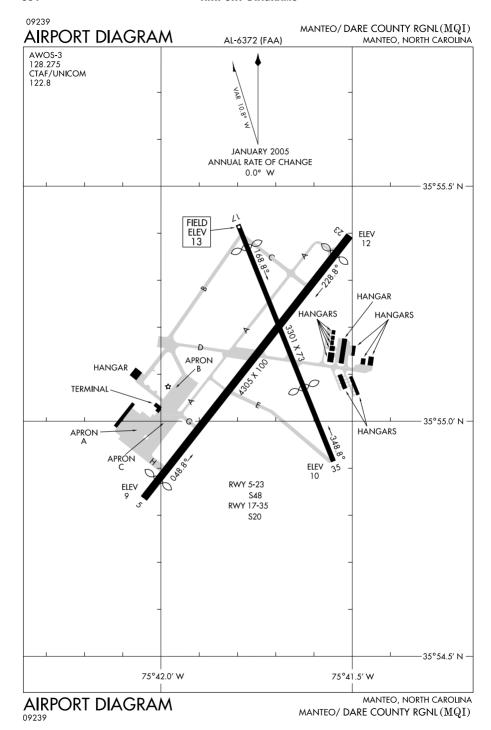


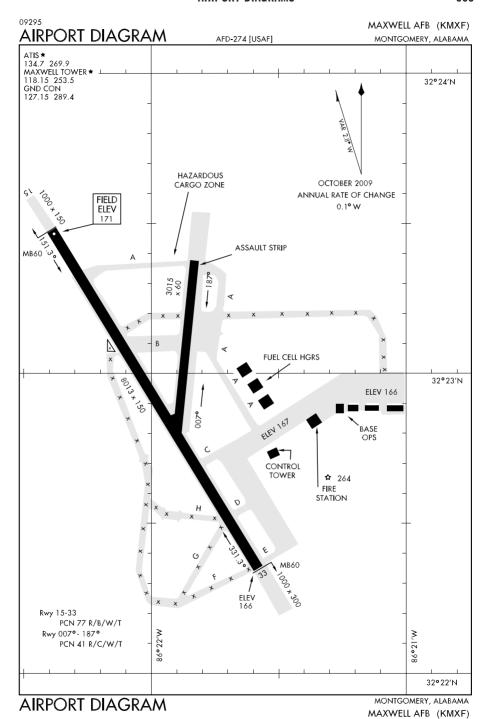
SE, 17 DEC 2009 to 11 FEB 2010

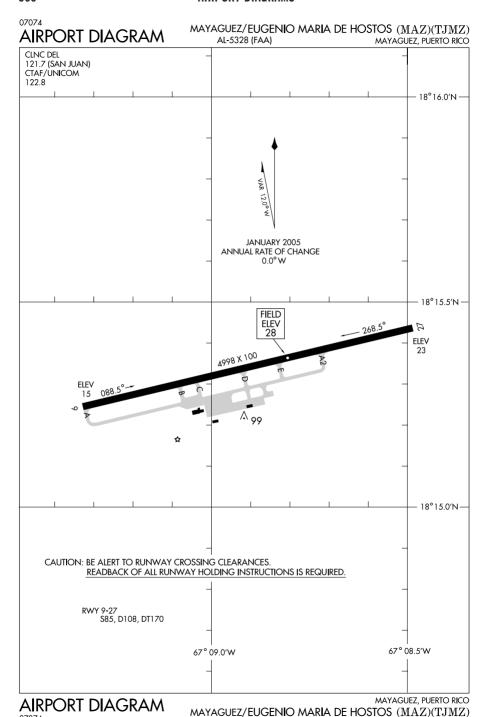




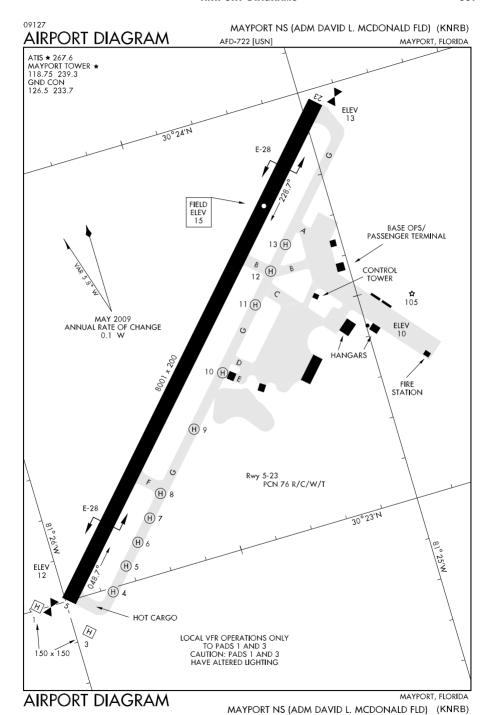


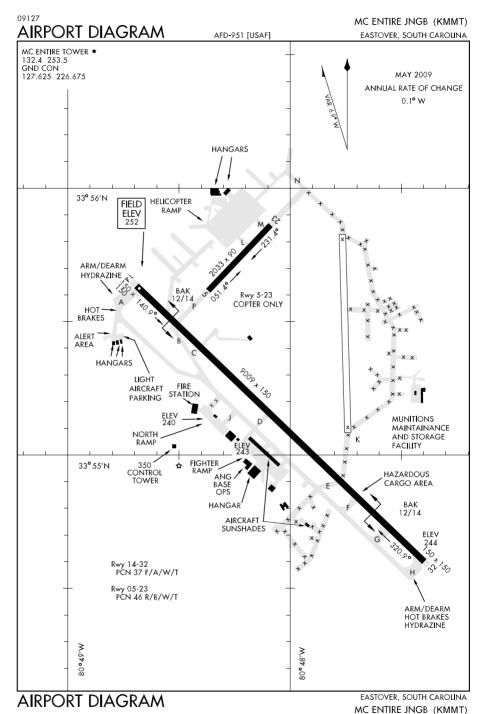


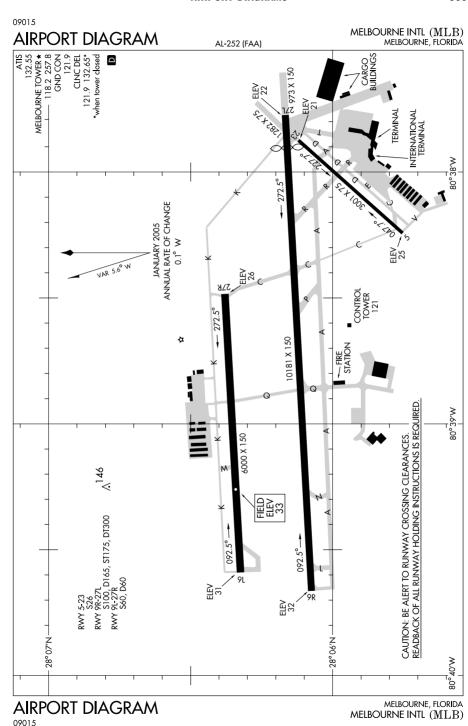




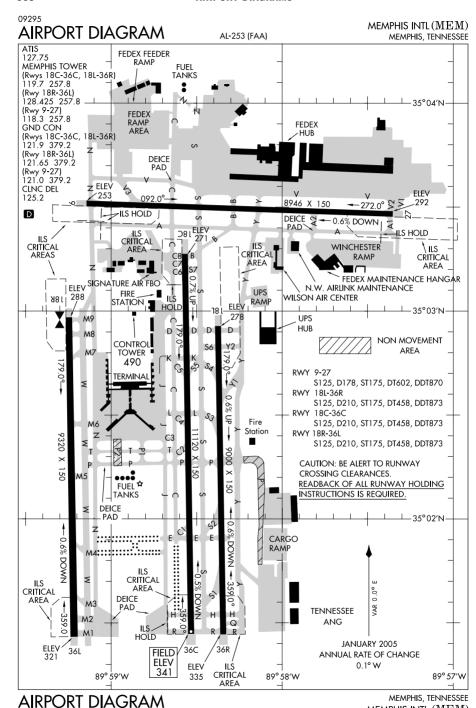
SE, 17 DEC 2009 to 11 FEB 2010



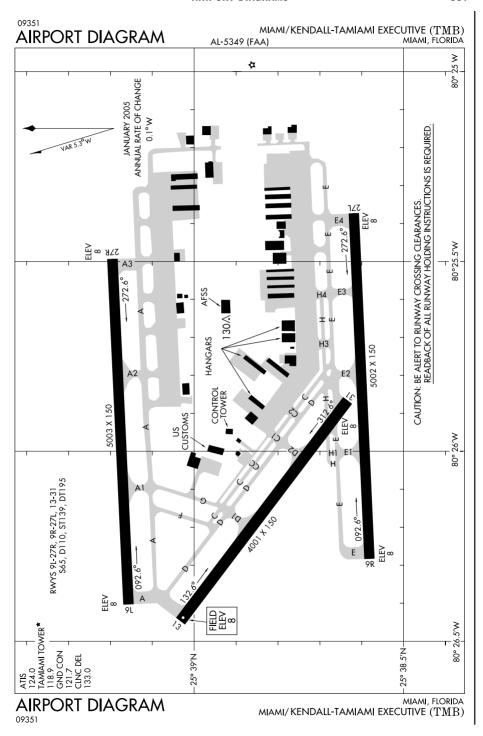




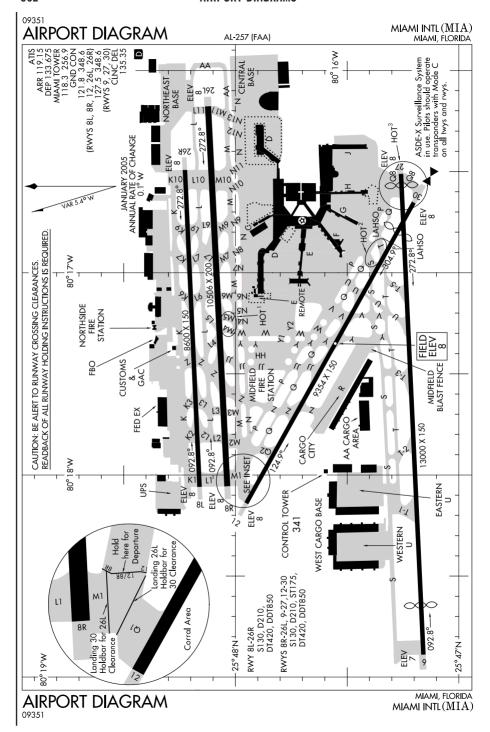
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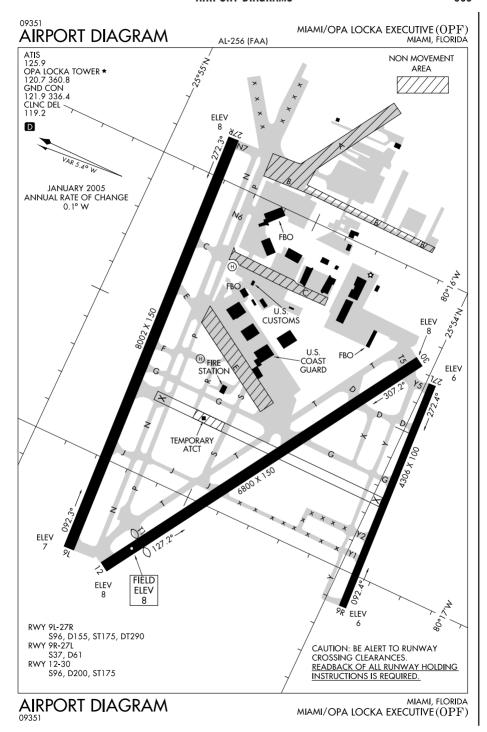
MEMPHIS INTL (MEM)

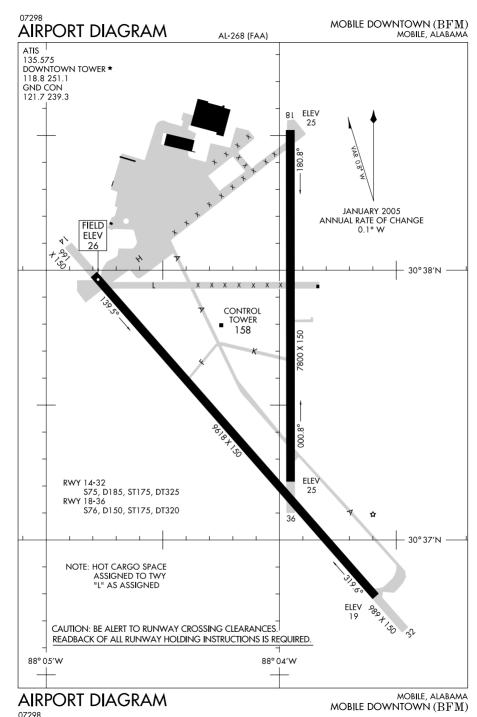


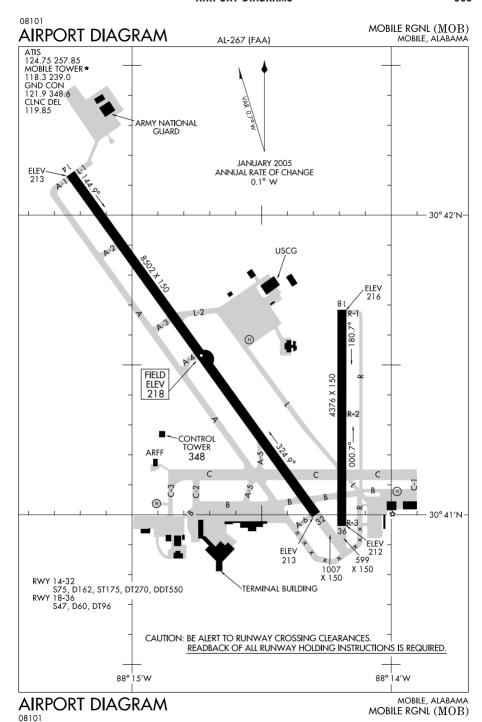
SE, 17 DEC 2009 to 11 FEB 2010

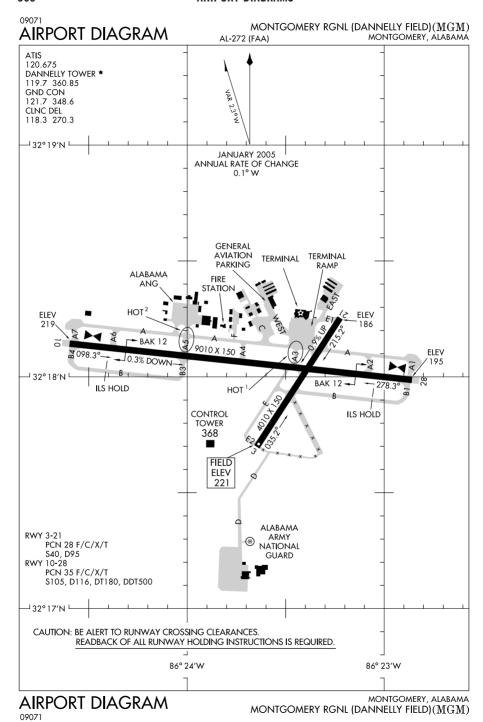


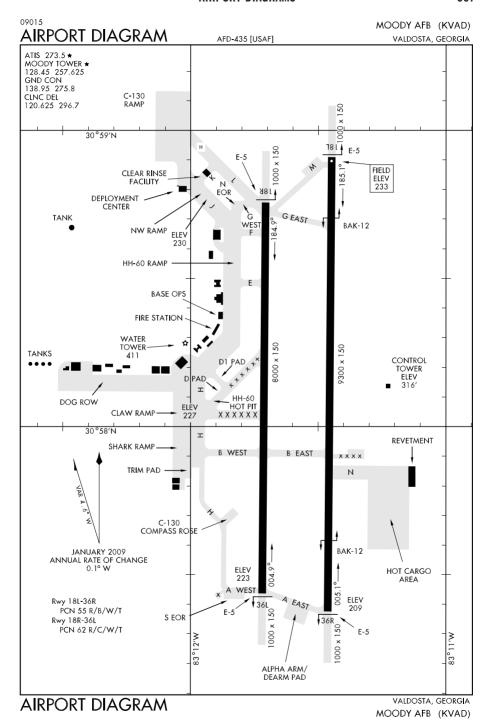
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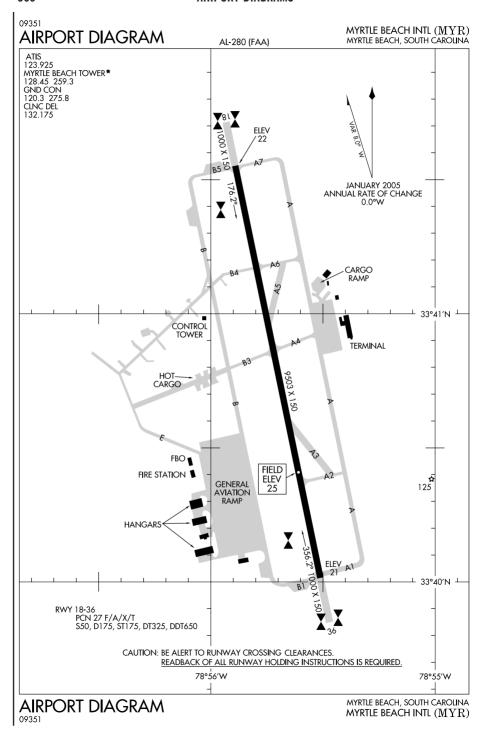




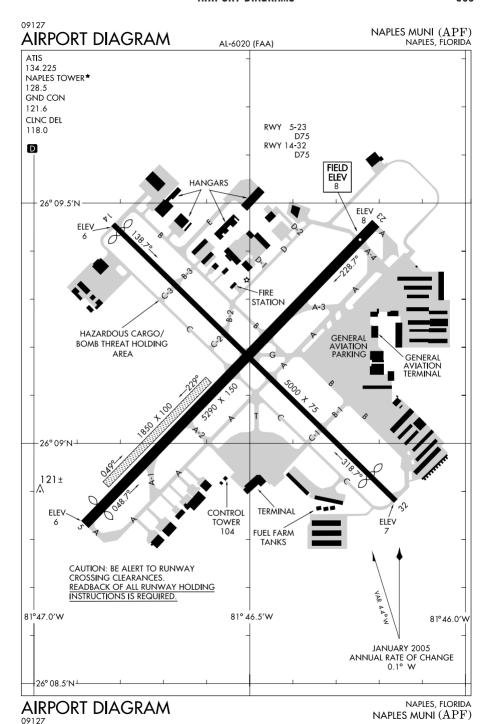


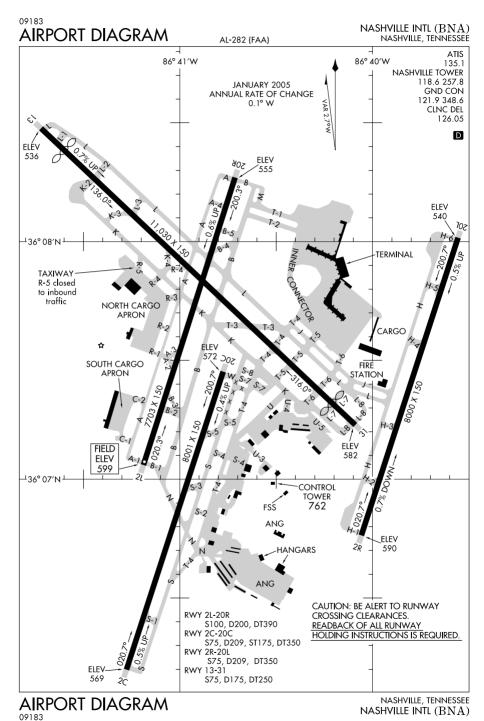






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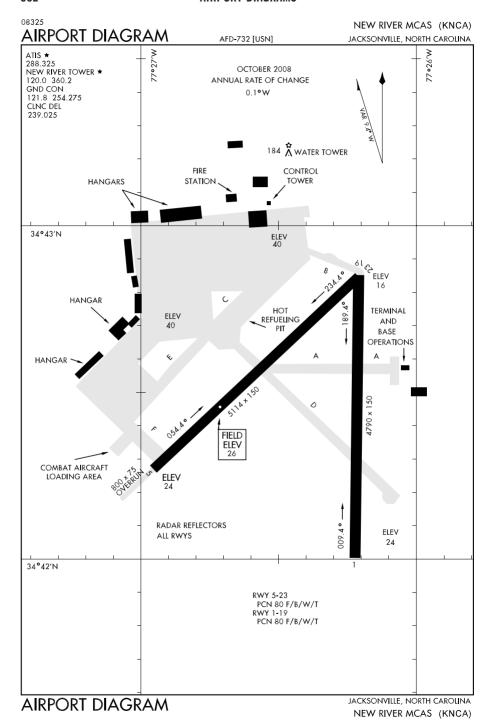


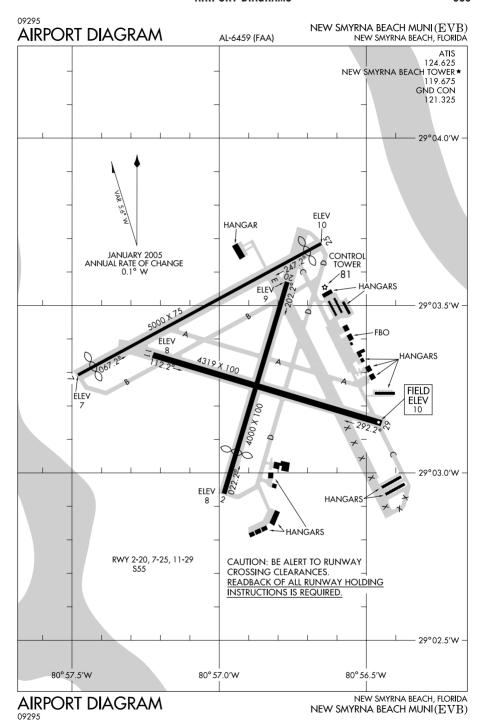


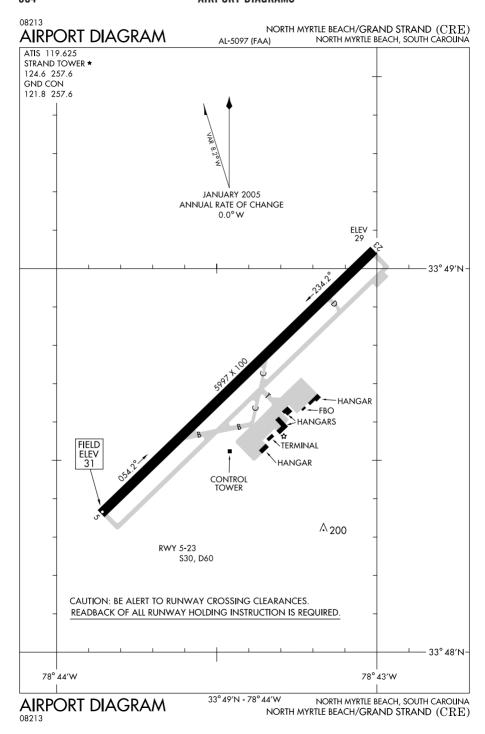
09183 NEW BERN/COASTAL CAROLINA RGNL (EWN) AIRPORT DIAGRAM NEW BERN, NORTH CAROLINA AL-670 (FAA) ASOS CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. 118 525 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED. NEW BERN TOWER★ 124.25 35°05′N **GND CON** 121.7 CLNC DEL 121.7 HANGARS FIRE **ELEV** STATION **HANGARS** GENERAL ELEV VIATION TERMINAL FIRE **STATION** CONTROL TOWER AIR CARGO FED EX FIELD **ELEV** 19 35°04′N **ELEV** RWY 4-22 S30, D62, DT140 RWY 14-32 S28, D45 JANUARY 2005 ANNUAL RATE OF CHANGE 0.0° W 77°03′W 77°02′W

AIRPORT DIAGRAM

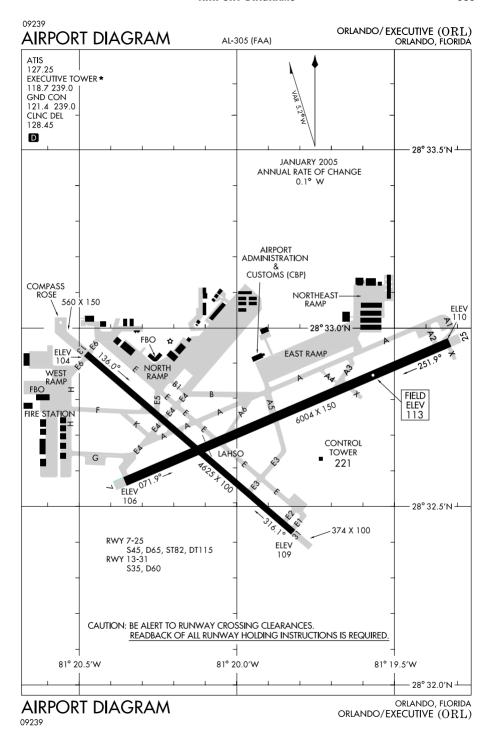
NEW BERN/COASTAL CAROLINA RGNL (EWN)

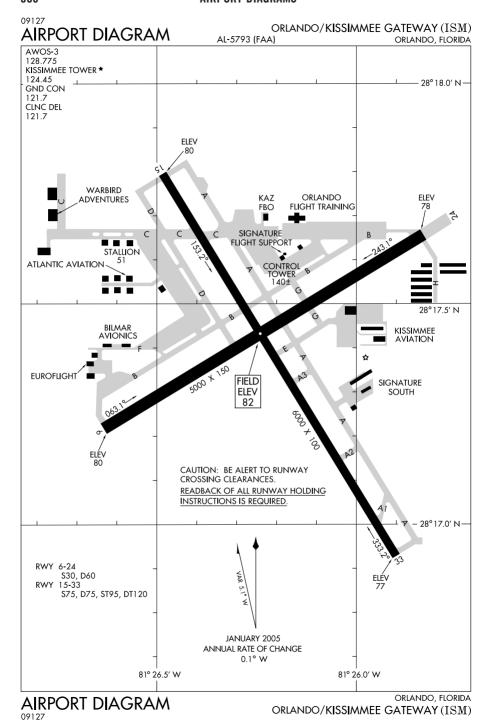




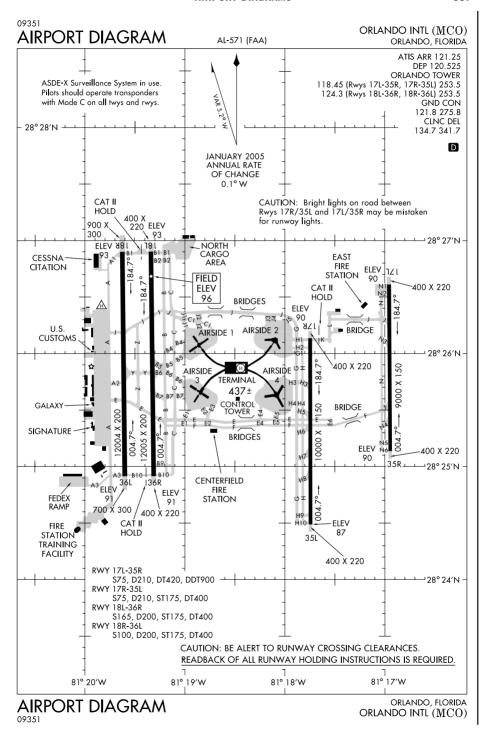


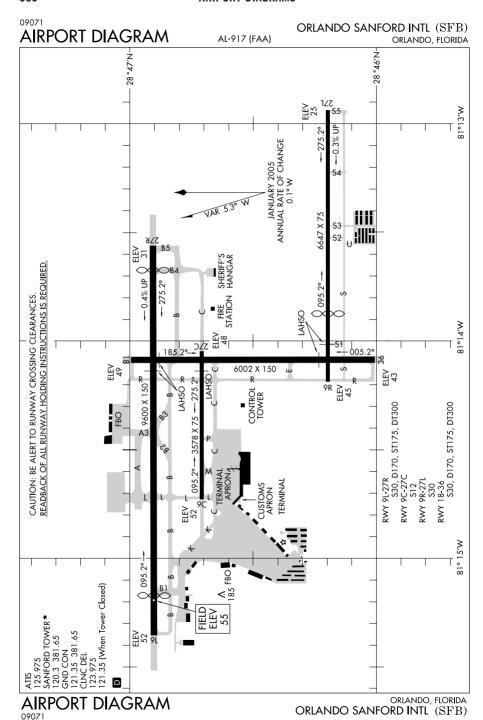
SE, 17 DEC 2009 to 11 FEB 2010

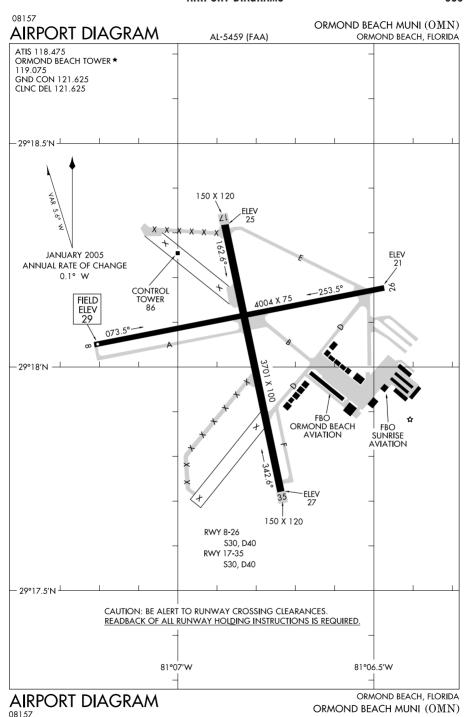


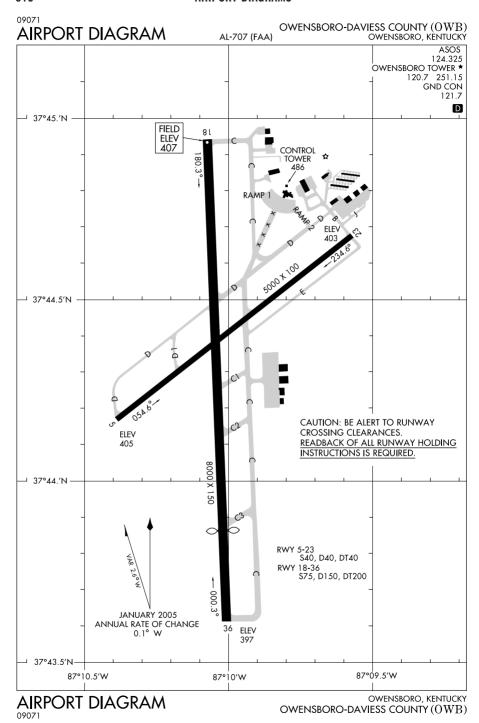


SE, 17 DEC 2009 to 11 FEB 2010

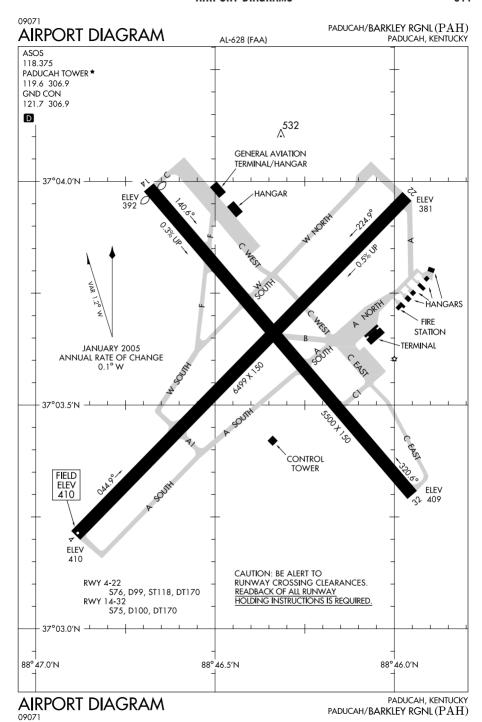


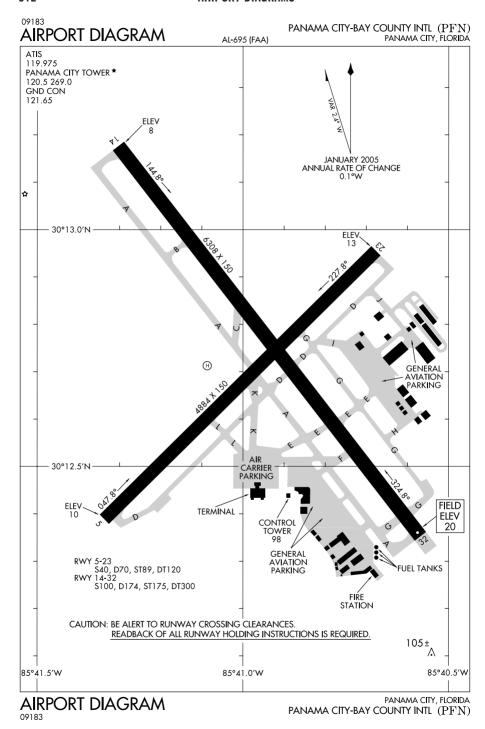






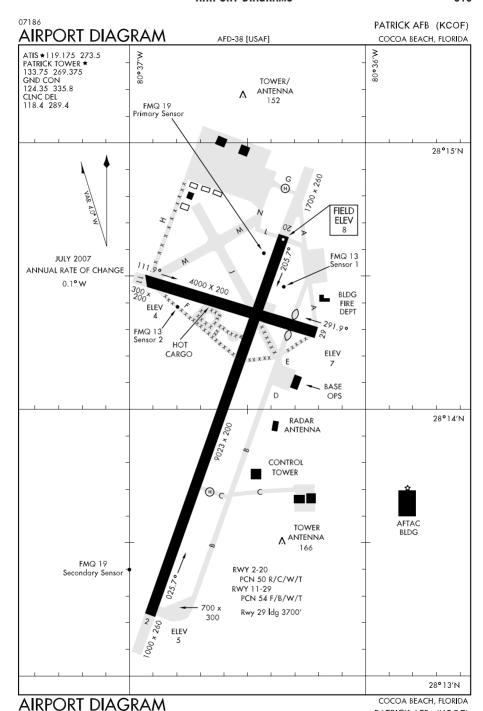
SE, 17 DEC 2009 to 11 FEB 2010

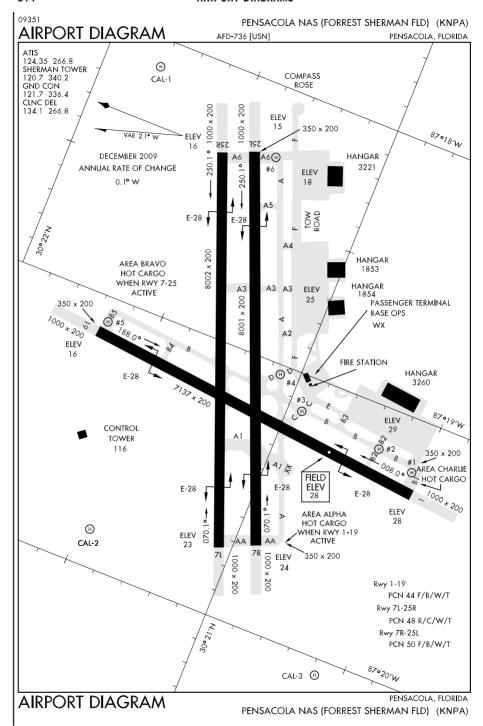




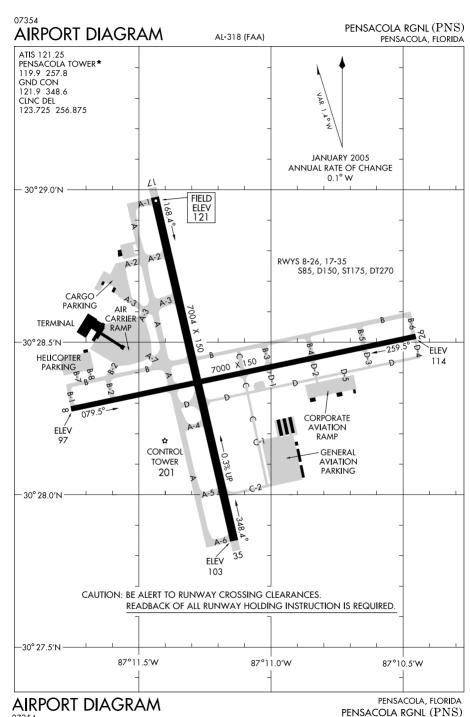
SE, 17 DEC 2009 to 11 FEB 2010

PATRICK AFB (KCOF)

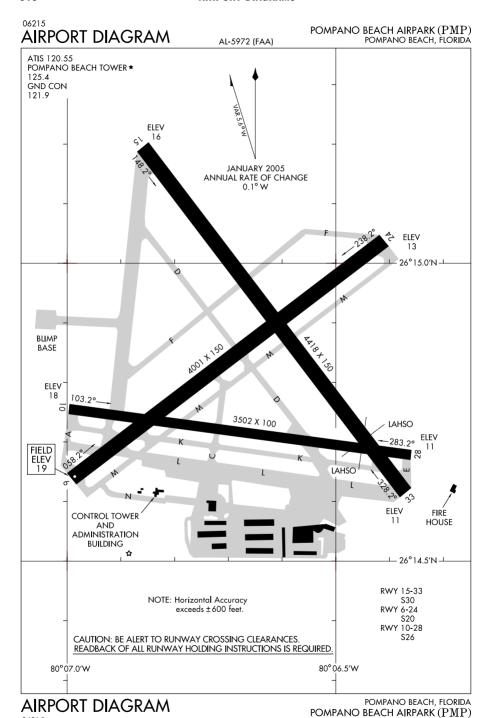


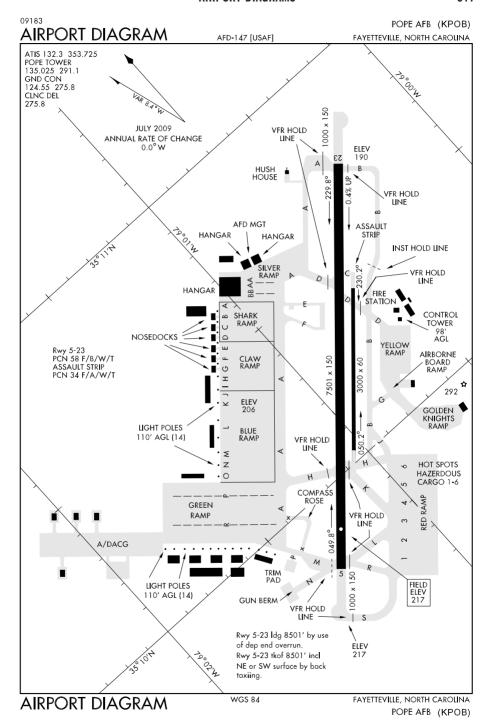


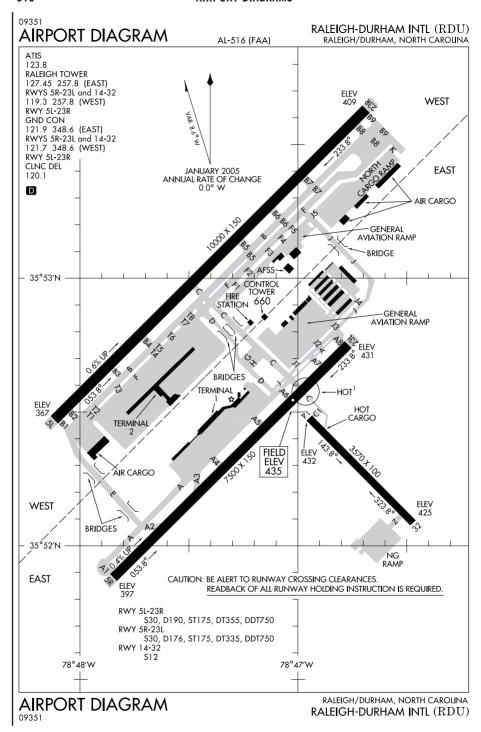
SE, 17 DEC 2009 to 11 FEB 2010



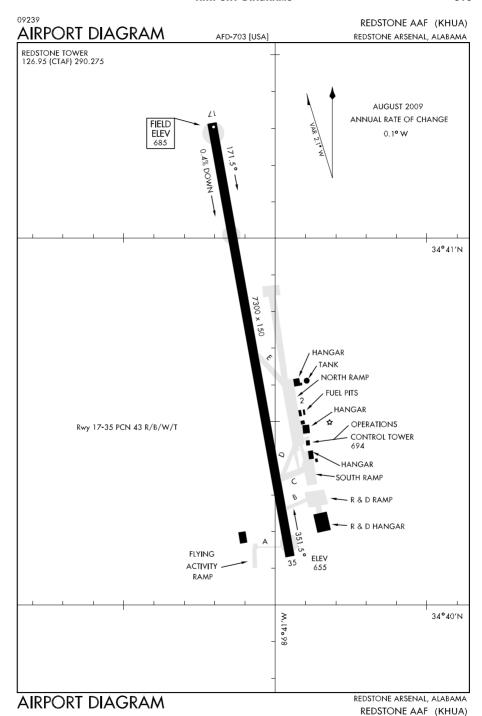
07354

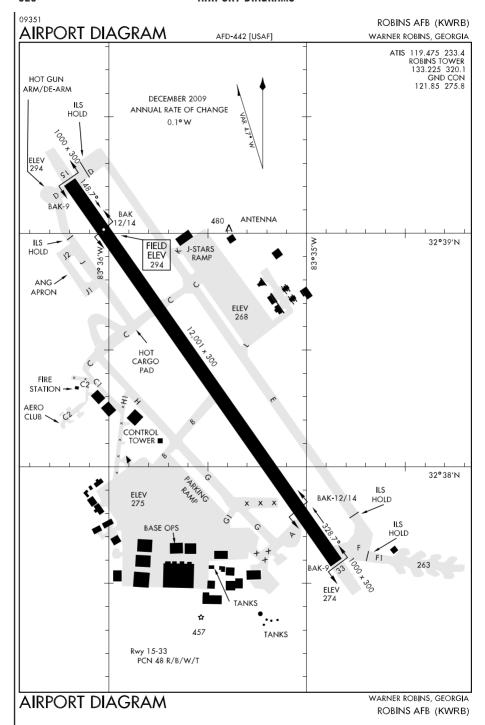




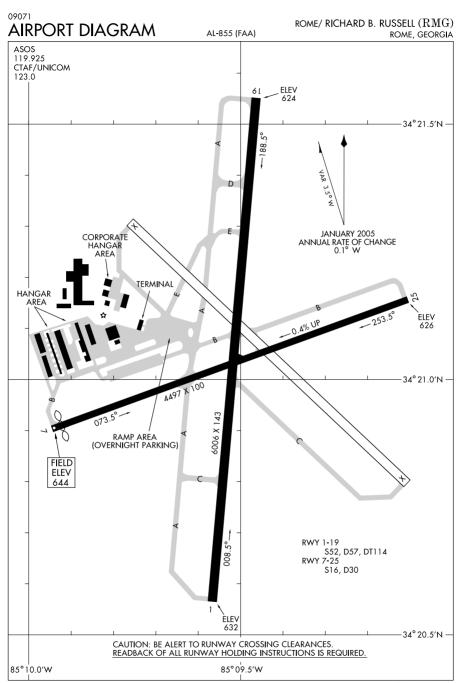


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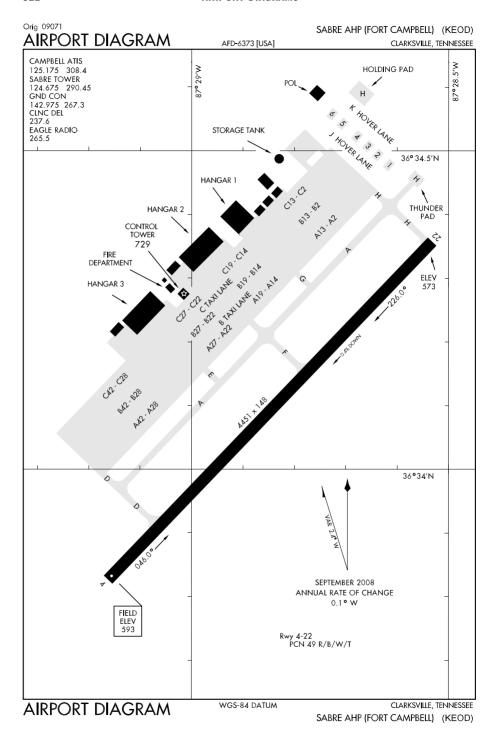




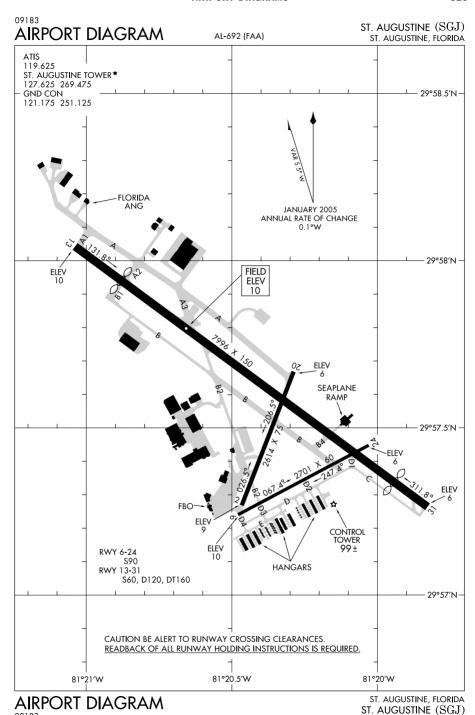
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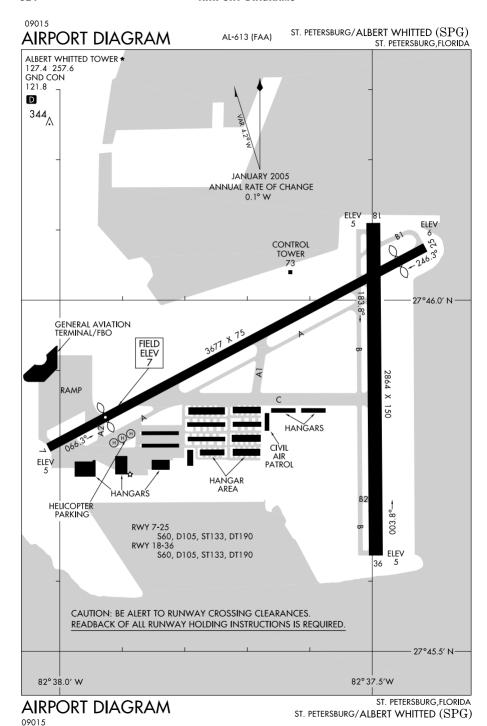


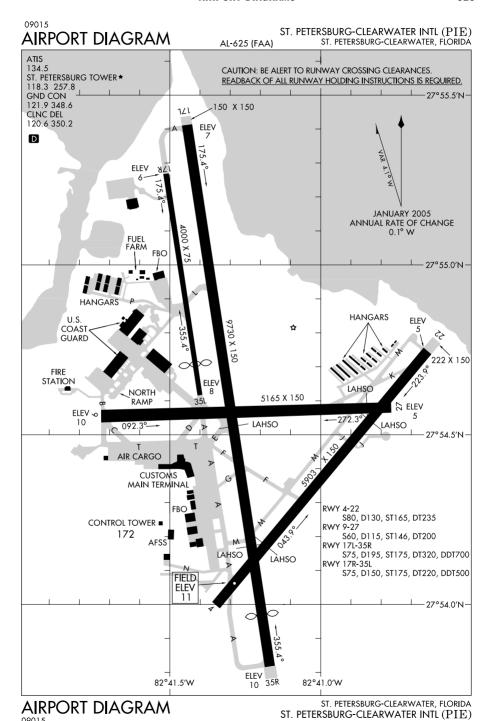
 $\begin{array}{c} \text{ROME, GEORGIA} \\ \text{ROME/ RICHARD B. RUSSELL } (RMG) \end{array}$ 

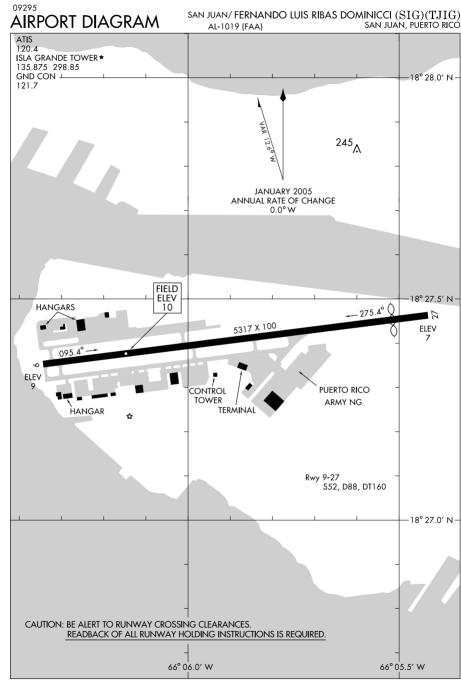


SE, 17 DEC 2009 to 11 FEB 2010

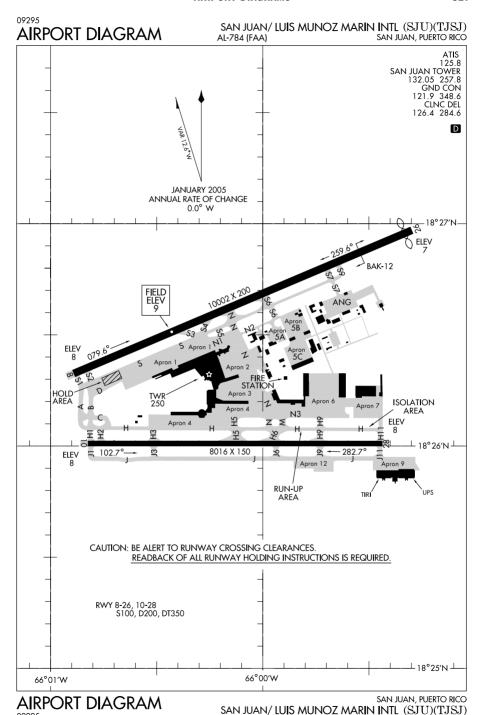


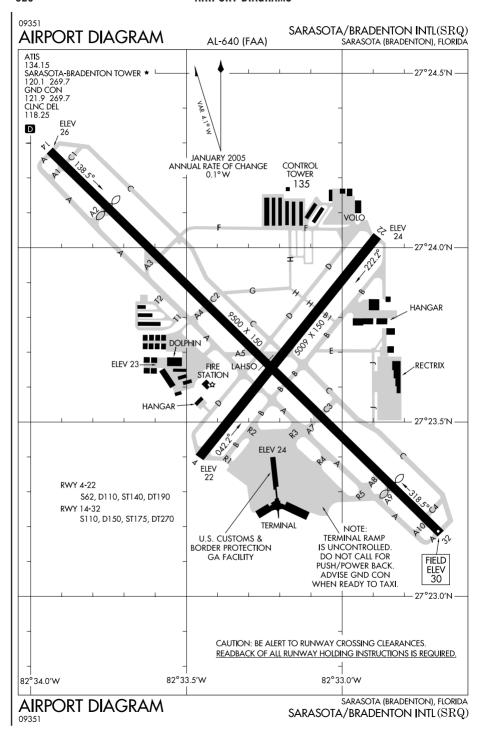




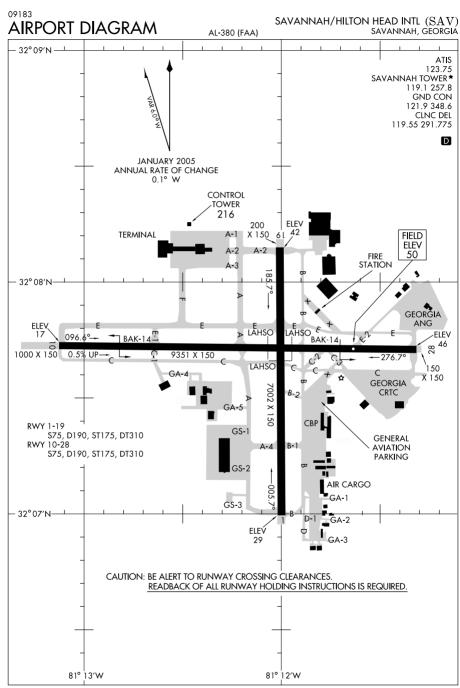


SAN JUAN, PUERTO RICO SAN JUAN, FERNANDO LUIS RIBAS DOMINICCI (SIG)(TJIG)

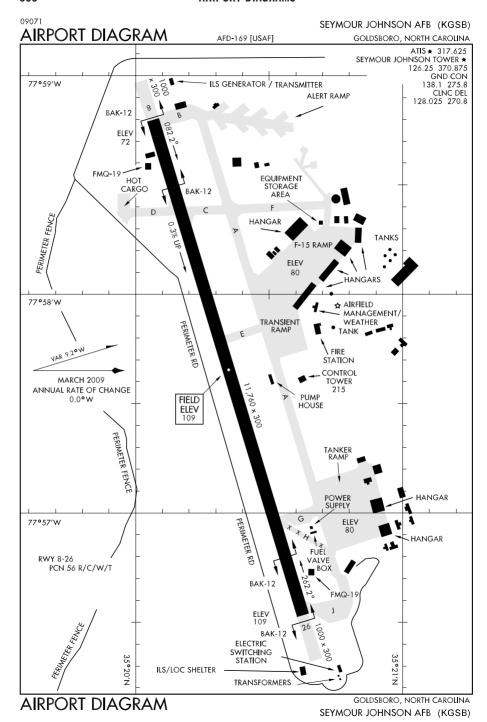




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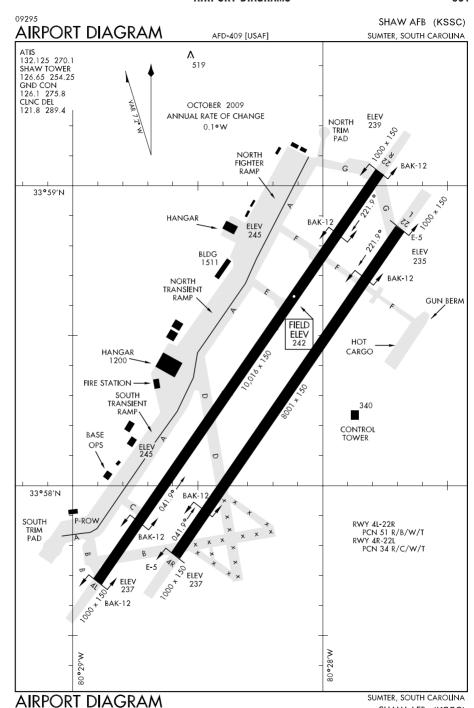


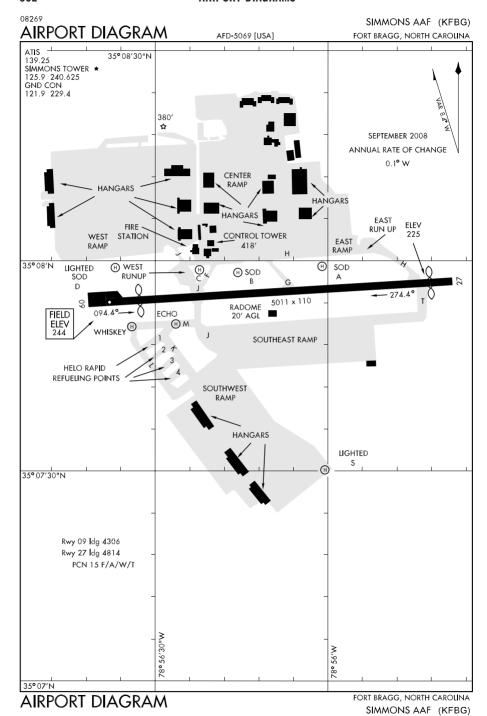
SAVANNAH, GEORGIA SAVANNAH/HILTON HEAD INTL (SAV)



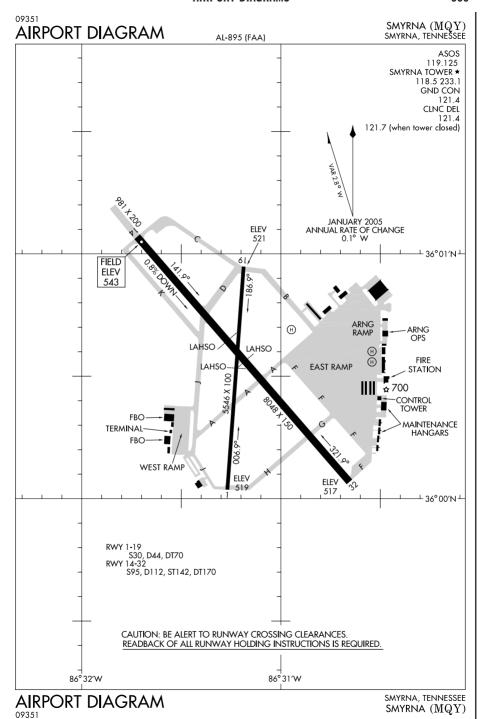
SE, 17 DEC 2009 to 11 FEB 2010

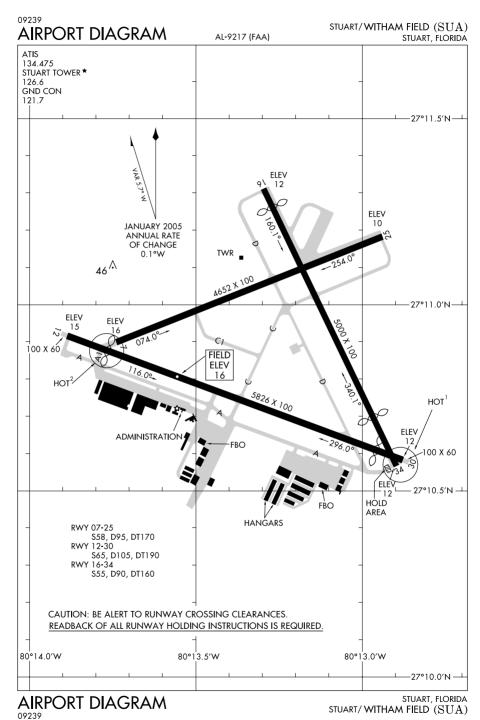
SHAW AFB (KSSC)

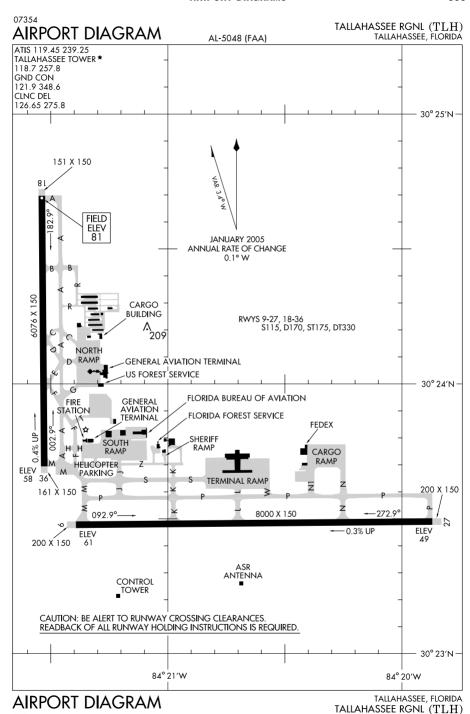




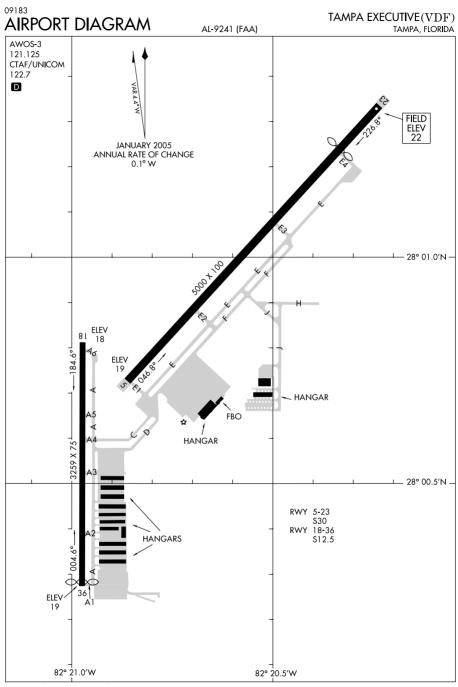
SE, 17 DEC 2009 to 11 FEB 2010



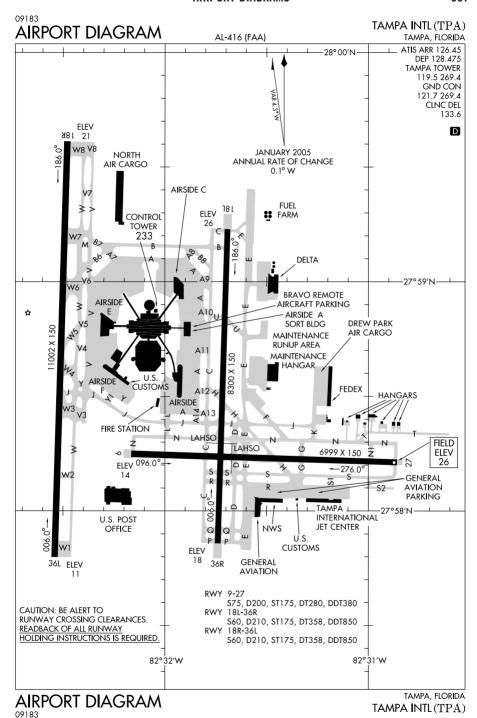


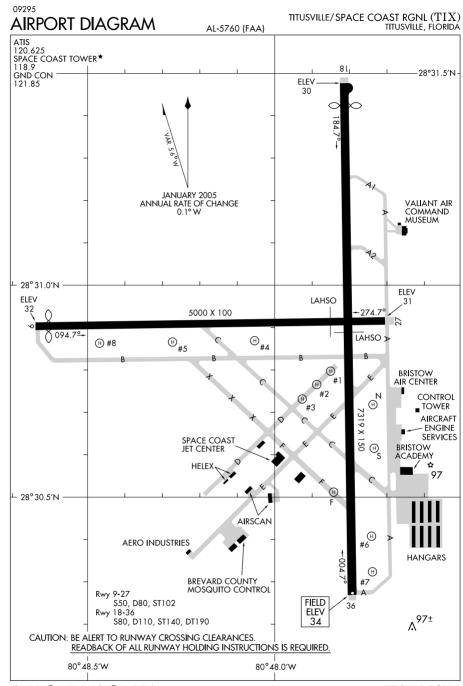


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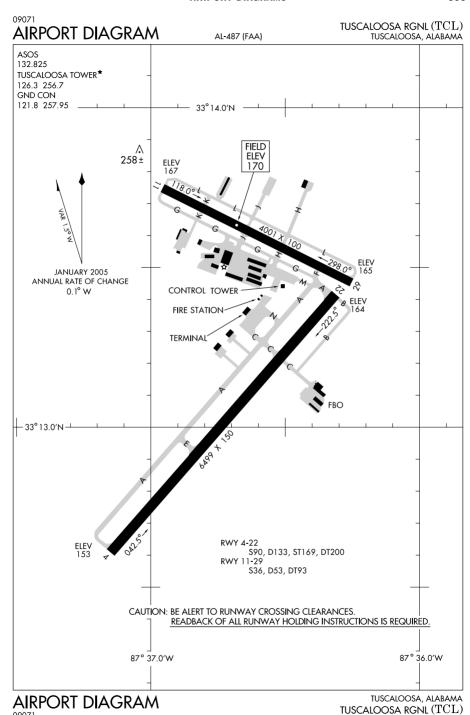


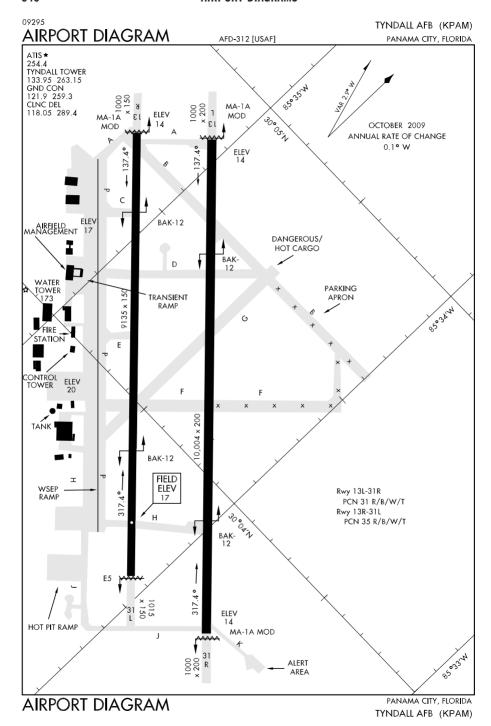
TAMPA EXECUTIVE  $(\mathrm{VDF})$  TAMPA, FLORIDA

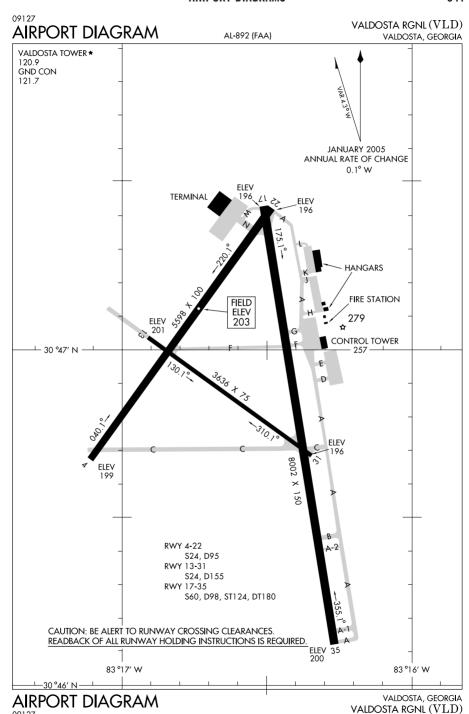




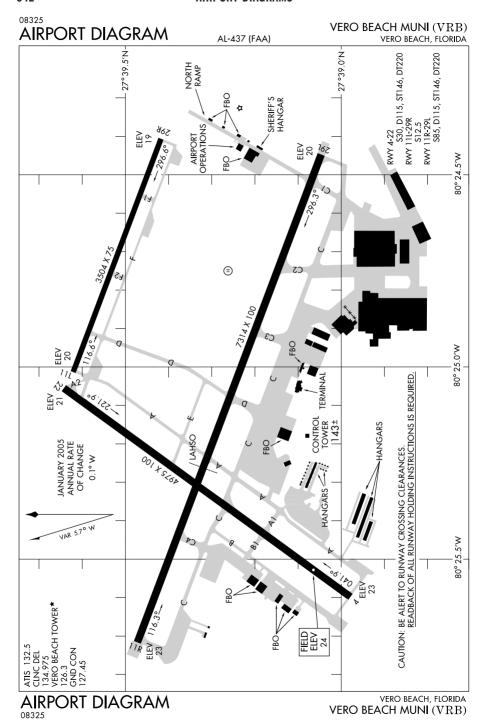
 $\label{eq:titusville} \begin{tabular}{ll} TITUSVILLE, FLORIDA \\ TITUSVILLE/ SPACE COAST RGNL (TIX) \\ \end{tabular}$ 



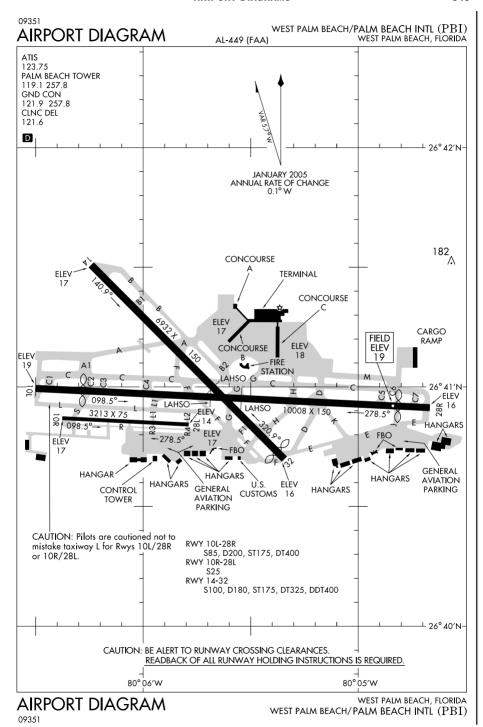


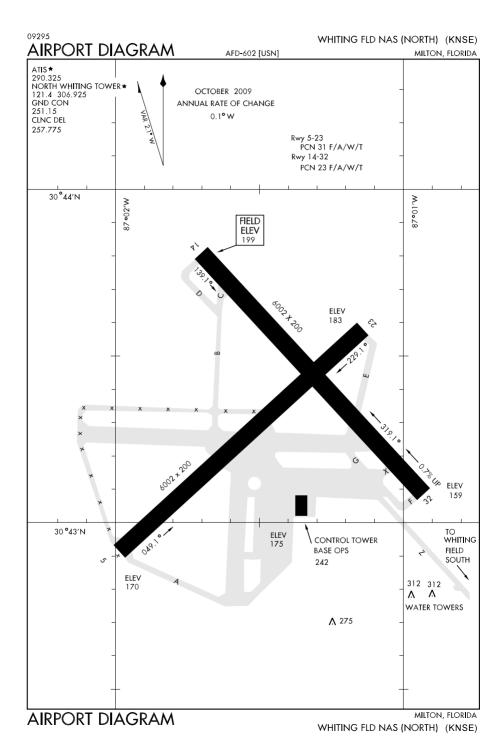


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